# DIY Projects for Storing Emergency Supplies (and other things)

Storage space seems to be the one thing lacking in almost any home, no matter where that home is and most of us have very little spare cash floating around to devote to storage solutions. If you are a Prepper this becomes a major issue. Between all of our keepsakes, normal items that need to be stored, workshop tools and gardening supplies, we Preppers have to account for disaster and food storage too.

Add to this that all of our emergency supplies should be protected from the elements and kept dry and most food items need to avoid drastic temperature changes as well as having temperatures that stay moderately cool. Then we need to protect everything from insects and other critters too and not just our food storage items.

On top of all of this, money is usually "tight". Then last but not least, if you are like me, you may be rather intimidated by building projects.

Is there a way out of this dilemma? Yes, as Preppers we need to do as people who live in small homes and or apartments do. We need to be inventive and creative. We need to think multi-functional, waste not and want not. And we need to keep expenses down - all at the same time. Doing It Yourself or building it yourself, along with salvaging just about everything, is a key to keeping cost low and affordable.

# "Ingenuity, plus courage, plus work, equals miracles." Bob Richards

So I pulled out all my old documents, magazines and asked family, friends and neighbors how they handle their storage issues. This resulting "letter" is my attempt to give you some ideas, some projects either I or friends have accomplished and some resource links to help you come up with additional inventive storage ideas for your emergency supplies as well as your everyday storage needs – all at DIY prices.

Scattered about this document you will see comments in orange that are meant to trigger that thinking cap. If you come up with other ideas please post them on my blog: <a href="http://nmurbanhomesteader.blogspot.com/">http://nmurbanhomesteader.blogspot.com/</a> or at <a href="http://www.survivalblog.com/">http://www.survivalblog.com/</a> as both will reach me and many more people to boot.

#### **Inventive Storage Idea Basics**

**Boxed or "tub" items** (like large Rubbermaid tubs) can be made to look like end tables or coffee tables by adding a piece of plywood to the top and putting a table cloth or slip-cover over it. Just router or sand the edges to the plywood so they are not sharp.

**Space under furniture** like tables, sofas, chairs and beds are great storage places. They can be kept clean and neat looking by utilizing the low, flat Rubbermaid type tubs. To fancy them up – glue or tape wrapping paper or material around the outside or put a bed skirt on the box spring. It has been said that a twin sized bed can store a year's supply of food for one adult under it. If the bed is too low, it can be raised on supports or "lifts" so containers can be fit underneath.

**Unused wall space:** One person I know has a rather long wall that spans between two rooms and because of the way the area is laid out, she can't put a chair or loveseat or anything much deeper than an 18" table. She has stacked her food and emergency supplies on rolling shelving that she made herself along this wall and has curtains hanging just in

front of them from floor to ceiling. It appears as a long curtained wall, yet keeps all her supplies within easy reach and out of sight.

**Utilize the space between studs** for shelving for smaller items and canned goods. When remodeling my two bathrooms I did this for shelves as well as towel racks. With the shelves and towel racks recessed between the studs, the bathrooms appear larger too. Before I build shelving items for the garage I utilized the space between the studs for canned goods.

**Reuse old Coolers:** One neighbor, whose garage faces north and manages to stay cool even in our New Mexico summers, stores his emergency food in old camping coolers. He has them on wood pallets that he stabilized and added wheels to. As a side: He has a green or red ribbon tied to the handle of the coolers. Green means he draws from this storage first for his rotation and red is the newer items that can be stored longer until rotated. As he purchases new items he moves the oldest from the red coolers, puts the new items in the red coolers and the older ones get moved to the green coolers. Another neighbor uses her old coolers to store all her pet food.

**Closet Idea:** Another friend of mine has a rather large walk-in closet that is in his hallway. It is packed floor to ceiling. His items are on rolling shelves that he put pegboard on the sides of so he can also hang his mop, broom and stuff like that, plus hanging storage bags off the sides. He got his shelves at garage sales and flea markets, added a wooden base with wheels and the peg board sides and viola – he has rolling storage shelves that are easy to move around and keep his emergency items at the ready.

**Velcro and vacuum space saver bags** are great for storing items rarely used like extra blankets, sleeping bags or your reserve emergency clothing. These can then be stored in Rubbermaid tubs, hung in a closet, hidden under a bed or as one neighbor does, has them under the cushions of his mattresses and sofas. You can *Velcro* extra spices and lightweight items to the backs of doors and cabinets or the sides of shelving and the like. You can even make your own space saver bags!

One friend of mine purchased a bunch of **old military type duffle bags** of various sizes and some **old canvas tents.** He made special sized duffle bags out of the old tent material. All his emergency supplies except for food are store in these and stashed about his home in neatly hidden places. His wife took the scrapes and made some hanging cloth shelves; like the ones you can buy to hang shoes, sweaters, handbags in your closets. Check out surplus stores, garage sales and flea markets or Campmor (http://www.campmor.com/) for purchasing canvas material by the yard.

**Buried Storage:** Another friend of mine in suburban Tennessee has some unique storage containers buried in her yard, under the garden shed. When they purchased the house they realized they didn't have a lot of cool, dry and dark storage space for their emergency supplies. They also needed a garden shed for their gardening tools. So when they selected the spot for the shed they dug some holes and placed an old chest freezer, two trash cans and a couple of coolers. They back filled the dirt to cover the sides. When the shed floor was put in, it had trap doors added so they can easily get to the items they stored in these buried vaults. The vaults stay dry, dark and being in the ground quite cool. Yes their items are also sealed in other bug and water proof items like tubs and plastic but they have very little trouble getting to these supplies when they need them and they are nicely out of sight as well.

**Cut out some concrete:** Out on the desert plateau of New Mexico another friend of mine decided the two things they didn't like about their home was the lack of storage space and the concrete slab construction. So in the garage they had a chunk of concrete taken out in one corner, dug a hole, lined it with cinderblock and put their food storage buckets

down in it, then added a trap door. This spot is under the workbench in the garage and is not readily seen, plus it stays cool even in our hot New Mexico summers.

**Dug Out Storage:** One of my Montana homesteaders took an old flatbed type hauling trailer that they had and purchased solid rubber wheels. Then on a hill near their home they dug out a "garage" for the trailer, reinforced the "ceiling", loaded the trailer up with their emergency supplies and parked the sucker in the dugout. You can't really see this "garage" as the front is covered by a nice arbor bench with vines and the like all around it. Yes the bench is moveable and homemade too. \*\* Don't forget that you can get plans online for turning an old truck bed into a trailer and J.C. Whitney (<a href="http://www.jcwhitney.com/">http://www.jcwhitney.com/</a>) is still the best place (and usually price) for all kinds of wenches and other automotive/trailer supplies.

**Under stairs** is another wasted space that can easily be turned into some kind of storage – be it a closet with shelves, rolling pull out shelving, recessed shelving or alcove for a desk. See the DIY project for this.

**Does your kitchen have a soffit with cabinets under it?** Do as one friend did. She punched out the sheetrock to the soffit. Then she measured her existing cabinets and added the extra 10" for the soffit area and ordered new cabinet doors only. For the cabinets in the laundry room with soffits, her husband made new cabinet doors to account for the soffit space. The new doors cover the existing cabinets and the soffit space making the kitchen look like she has to the ceiling cabinets, which in a way now she does. She keeps some of her food storage items in these high spaces.

Another friend of mine got himself some **pulley/manual wrench systems** cheap at a surplus store. Cleaned them up and then made platforms that he hangs from his garage roof. His bins with all the emergency supplies are store on the platforms, up and out of the way against the roof. The pulleys allow even his youngest (13) to lower and raise the platforms even though they are heavy enough to crush her.

For food storage, remember that a trash can or plastic tub may not be "food certified" but once cleaned and then lined with food certified plastic it can house long term food storage. Trash cans also make great storage containers for pet food, toilet paper, camping equipment and the like. I have some old trash cans that have lost their lids that I use to hold my rakes, brooms, post hole digger and some lumber in. Secure the trash can to a rolling platform and the whole thing can be moved easily where you need it.

**Scan Garage Sales and Flea Markets.** Keep an eye out for covered storage containers, shelving and book cases that often go on sale at stores like **Big Lots, Dollar and Surplus stores**. Bookmark and search often at **FreeCycle.com, Overstock.com and Craig's List.** Don't forget those **Goodwill** and second hand stores either.

Being a single parent and never really having a lot of spare monies, I often took advantage of **Dumpster Diving** (still do, it's a great resource), as well as getting to know the **local restaurant** and **home improvement store managers**. This way I could get all kinds of pallets, empty food containers, scrap lumber and the like for free. Since I walk a lot I pay close attention to people throwing things out or doing DIY home improvement projects and would always ask to search through their scraps before they took them to the dump. If you frequently pass a **construction site**, stop and talk to the manager/foreman. You would be surprised what can be obtained for little to no monies. More freebies that just needed either a little fixing up or inventiveness to turn into something useful.

One time when I was waiting at a bus stop I noticed this person making repeated trips to the dumpster with what appeared to be broken down boxes. When I asked what he was throwing away he told me his office had just moved in and these were all the file boxes that they are emptying. Wow! I missed the bus that day and ended up getting my son

to come pick me up in his truck. I got over 500 of these heavy duty office cube styled file boxes with lids for free!! I've used every one of those suckers too. They are great for books because it is impossible to over pack them and make them too heavy for me to lift.

Great Doc on **DIY Firearm Storage** <a href="http://www.scribd.com/doc/14860366/Making-your-own-Desiccant-Packs-for-longterm-firearm-storage">http://www.scribd.com/doc/14860366/Making-your-own-Desiccant-Packs-for-longterm-firearm-storage</a> \*\* You will see this listed more than once because it is such a fantastic article!

# "Creativity requires the courage to let go of certainties." Erich Fromm

#### Lumber Salvage: The Top 10 Sources for Cheap, Free and Recycled Wood

http://www.toolcrib.com/blog/2008/10/30/lumber-salvage-the-top-10-sources-for-cheap-free-and-recycled-wood/

There is no such thing as free wood. There, I said it. If your dream of free wood doesn't include YOUR LABOR and, potentially, NEW TOOLS then it will stay a dream. If you're ready to put in the footwork of research, emails, phone calls, personal visits and 12-pack bribes then you might just be ready to face all the OTHER hard physical work involved in recycling, salvaging and refurbishing this so called "free wood."

So I hope that scared off the lazy freeloaders;) For the rest of you who are ready to work to recycle and refurbish your cheap and free lumber (congratulations you can call yourselves green woodworkers instead of cheapskates;) here's what you'll find in this article:

#### **Sources for Cheap Wood**

There's a lot of cheap wood out there for you – here are the five that I found. If you have others please comment them or send an email to GFrench@ToolCrib.com.

#### 1) Commercial Woodworking Firms

Milling companies, furniture manufacturers, cabinet makers, and all your local wood flooring installation companies have wood cutoffs and discards. ALL OF THEM. I read over and over about people hauling off pickup truck loads of wood for \$50. Ask to speak with the owner or manager. Be nice, be friendly, be prepared for rejection and you'll soon find your personal source of cheap, ready to work wood. (Floor installer idea from LumberJock Pete\_Jud in Free wood source. http://lumberjocks.com/Pete\_Jud/blog/4017)

Pros: Typically use nice hardwoods. Cons: Small, irregular sizes are likely.

#### 2) Lumber Mills and Lumber Yards

Like commercial woodworking firms these guys produce a lot of waste. Your lumber mills and lumber yards understand the value of space even more highly than commercial woodworkers though. Again, be professional and courteous. Talk to the yard manager and ask him if he has any waste you could take off his hands for him. Happy hunting!

Pros: You can find some incredible wood at low prices.

Cons: Sometimes bugs. You may have hauls where you can only use a small portion of what you take.

#### 3) Furniture at Yard Sales, Junk Stores and Flea Markets

Cherry? Oak? Mahogany? You can find all of these and more in furniture at your local yard sales, junk stores and flea

markets. It could be that the ratty-old sofa that's going for \$5 is built on a solid frame of re-workable wood. Idea from LumberJock Bryano in do you use recycled wood (http://lumberjocks.com/topics/964)?

Pros: Old, seasoned wood. Cons: It's in furniture form.

#### 4) Volunteer for a Deconstruction Project

The next time you hear that someone's putting on an addition, tearing up some flooring, or even taking down an old barn ask them if you can help them deconstruct instead of demolish... Your payment for helping out will be pick of the wood that comes up off the floor or out of the walls.

Pros: Old, seasoned wood with LOTS of character. Cons: It's "free" but you pay with LOTS of sweat.

#### 5) Woodworking Forums

I read woodworking forums a LOT. There's always someone who's got a line on some cheap wood at a great price. I've seen folks going in on lots of wood to get a reduced price. There's at least one lumber dealer who posts regularly at Woodnet who seems to give great deals and great service.

Pros: Great prices, GREAT wood.

Cons: You have to spend a lot of time on forums and even post a little bit so people will get to know you.

#### 6) Construction Site Dumpsters and "Burn" Pile

Any new construction – and especially demolition – create HUGE amounts of waste. Demolition alone accounts for 1/3 of landfill waste according to a half remembered statistic in my head. There's a lot of wood in those dumpsters folks, and if you're a brave soul who doesn't mind digging through the trash then it's ALL YOURS. That said you will need to be professional about it, always seek permission before entering someone else's property and be safe. I also highly recommend that you read this guide to dumpster diving – <u>Dumpster diving: an Introduction</u> (http://www.kuro5hin.org/story/2003/1/29/215523/088).

Pros: You can brag about finding great wood for free.

Cons: You may have to break out of your current social norms and people will get VERY tired of you bragging all the time.

#### 7) Wood Pallets

I wrote extensively about woodworking with pallets (http://www.toolcrib.com/blog/2008/06/24/woodworking-with-pallets-aguide-to-finding-breaking-down-and-building-with-pallets/) – they make the eyes of newbie woodworkers gleam, until they actually try to work with them. That said if you work your local pallet-using companies well you can find your way into a steady supply of free wood... and if you can befriend local PALLET RECYCLING companies you might do even better for yourself.

Pros: Lots of oak.

Cons: Small pieces, LONG processing times. Chemicals on pallets?

#### 8) Discarded Roadside Furniture

If you've already read this far then I know you're the type of person who gets amazed at what other people throw away. If you don't already own a pickup truck you should probably get one because it's time for you to start pulling over at every pile of wooden junk you see on the side of the road. Tables, chairs, dressers – all these and more end up on the side of the road, especially in college towns.

Pros: Good wood for free.

Cons: Storage until you can break it down? You have to break it down.

#### 9) Freecycle.org, Craigslist.org, Woodworking Forums

Freecycle.org is dedicated to connecting people to free stuff – I have no idea exactly how the free part works but you should check it out as I've seen it mentioned regularly on woodworking forums. Craigslist – well, you should already be prowling Craigslist every day for cheap/free lumber. Most of the time all you have to do is go and pick it up. On woodworking forums too (real life woodworking club meetings too...) you may find folks who are giving wood away, sometimes in return for a favor of some sort – there's lots of competition there though;)

Pros: Free wood and you're usually helping someone out by removing it.

Cons: You have to monitor websites and have lots of email and phone conversations.

#### 10) Fallen Wood from Storms, Construction and Arborists

Every time a tree falls in your neighborhood you could be stocking up on board feet for your next project. Come to think of it, why not talk to your local arborist tree surgeon companies and ask them (ask in this case means give them a case of beer) to let you know when they're cutting down some hardwoods in your area. Either way you're talking about taking what is waste to someone else and turning it into workable wood for yourself.

Pros: You can get some gems this way.

Cons: Chainsaw, Sawmill, Kiln, Jointer, Planer, Truck, Trailer, ETC... (not even close to free, really;) Fresh wood takes a long time to cure.

**To keep costs down get creative,** think multi-functional and find your inner MacGyver. Take a look at the examples below and then think how you can utilize existing scrap wood and or modify one of the plans to make storing your emergency supplies easier.

Take this system, instead of tools how about backpacks and duffle bags hanging off the sides (go packs)? Tents, tarps and other items can be on the shelf between the two outer pegboard sides.



"One man's junk is another man's invention"

Unknown

# Here are some links and plans for the DIY'er

Of the various projects in this letter, I personally have only done a few by myself and had help for a few others. Two of my neighbors have done quite a few of the other wood projects (and then some). However, the instructions make sense

to me, which should tell you something, so I'm sure the rest of you can work with them too. \*\* Be sure to check out the end of this "letter" for more great links to DIY Storage Projects \*\*

Remember most of these are not designed for emergency supply storage as they are written, but imagine adding some wheels; enlarge or modify with some other inventive adjustments and you have yourself some unique storage solutions that save you money because you have built it yourself.

#### **Free Lumber Project Inspirations**

Pallet wood oak jewelry armoire http://lumberjocks.com/projects/9922



nesteader:Weebly.com Library table built from oak shipping crates http://lumberjocks.com/projects



How to Make Your Own Vacuum Sealed Storage Bags from http://www.wikihow.com/Make-Your-Own-Vacuum-Sealed-Storage-Bags originated by: Flickety, Lillian May

### \*\*\* Fantastic and works great !!!

Vacuum sealed storage is useful because it reduces the size of clothing, blankets, quilts, towels etc. and enables them to be stacked evenly. If you cannot find, or afford, the real deal, here is how to make an equally good substitute of your own.

Things You'll Need

- Extra strong garbage bags
- Vacuum cleaner
- 6 rubber bands per bag, minimum
- Clean clothing, linen etc. for storage
- 1 Put your linen, blankets or clothing into the extra strong garbage bag.
- 2 Pull the open end of the bag together and form a small circle shape.
- 3 Place the vacuum cleaner pole into the circle shape and hold it firmly around the pole.
- 4 Suck out the air by turning on the vacuum cleaner.
- 5 Remove the pole whilst carefully holding the opening tightly together.

er.weebly.com

- 6 Affix a minimum of 6 rubber bands to the seal the opening.
- 7 Label and place into storage.

You can even purchase plans and ideas for Hidden Doors, Secret Passageways and the like. Yep you can have a passage that leads to secret storage of emergency supplies, safe room, escape tunnel or a bat cave. Just about whatever you want.

I know this is too complex for me, however I do have a good friend who is experimenting with some of these plans and he recommends starting with <a href="http://www.cafepress.com/hiddendoorplans">http://www.cafepress.com/hiddendoorplans</a> from there try the other links at the end of this document.

Another great source with <u>Instructables Tutorials</u> is <u>http://hacknmod.com/hack/diy-rotating-bookshelves-staircases-trap-doors/</u> - http://www.instructables.com/id/Hidden-Door-Bookshelf/

Below is an example of some of their projects/work:













Build a DIY Secret Bookcase Doorway

http://hacknmod.com/hack/build-a-diy-secrety-bookcase-doorway/



<u>DIY Batman-Style Secret Bookcase Passageway</u> passageway/

http://hacknmod.com/hack/diy-batman-style-secret-bookcase-



<u>Wireless DIY Halloween Surveillance Pumpkin</u> pumpkin/ http://hacknmod.com/hack/wireless-diy-halloween-surveillance-



**Build a Remote Control Deadbolt** 

http://hacknmod.com/hack/build-a-remote-control-deadbolt/

#### **Creative Storage Ideas with Cardboard**

Cardboard is a rather unique and multifunctional product. Depending on how sturdy and stiff it is you can do quite a lot with it. So, instead of throwing it out try a few of these ideas for cheap easy storage solutions.

#### How To Build Your Own Can Rotating Rack Out of Cardboard from

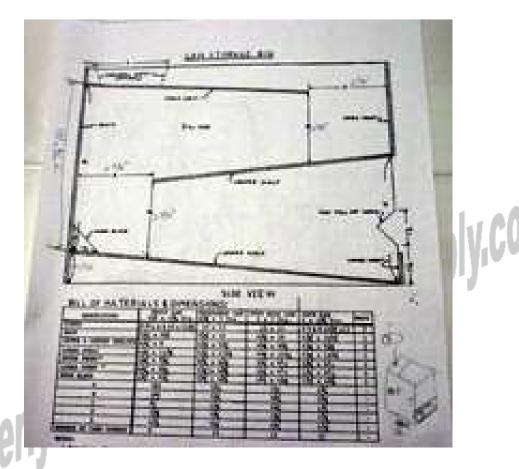
http://foodstoragemadeeasy.net/2009/02/16/build-your-own-can-rotating-rack/ Posted by Jodi -- Food Storage Made Easy

\*\*\* This I have made for canned goods as well as with a little modification and some simplification, I used this as a Magazine File for all my Backwoods Home magazine storage. To fancy up the cardboard in any of these projects decoupage it with old wrapping paper, photos or material scraps.

There are several versions of this project from other sources. Pick the one that works for you.

This tutorial is created courtesy of my husband who made me this **can rotating rack** for a Valentine's Day gift and agreed to document the process to share with all of you! The great thing about making your own racks is that you can customize the depths to fit your cupboard, and build however many you want for whichever cans you choose to store. Plus they are FREE! Make sure to scroll to the bottom to see a video of my new rack in action.

**Step 1** Print out the shelf diagram (this great diagram comes from the Pantry Panel blog). Decide which size you want to make. I opted for the soup can size to start out.

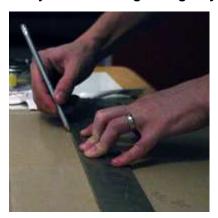


**Step 2** Take a large cardboard box (either 1-ply or 2-ply) and measure out the pieces you are going to need. We decided to combine the sides and back into one long piece to make it sturdier and have less pieces to glue. We used a carpenter's square to measure and make straight lines, but any ruler will be just fine. Here's what our pieces measured as per the diagram:

- Sides/back combined 28 3/8" long x 10 1/2" high
- Upper and middle shelves 9 1/8" x 4 1/8" each
- Bottom shelf 12 1/8" x 4 1/8"
- Top front piece 3 1/4" x 6 1/2"
- Bottom front piece 1 1/4" x 6 1/2"

My husband decided to make the two front pieces a little bit taller because he wanted them to wrap underneath the shelves to make them sturdier. So our pieces actually measured  $4\ 1/4" \times 6\ 1/2"$  and  $2\ 1/4" \times 6\ 1/2"$ . He also recommends adding an extra 1/8" to each shelf width (so they'd be  $4\ 3/8"$ ) as ours ended up a tiny bit too tight for the can to roll smoothly.

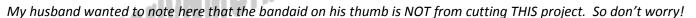




**Step 3** Cut out all of your pieces using an exacto-knife or other sharp blade. We couldn't find our exacto-knife so that's why we used this pocket knife. It didn't make perfect smooth edges but it worked just fine. You could actually even use scissors if you want. If you used a long piece for the side/back pieces then you'll need to bend the side pieces in to the right shape. We used our carpenter's square (ruler) to help bend a straight line.







**Step 4** Take your side and back pieces (either glued together or folded in) and make sure that your can will fit inside properly. Then measure 2 3/4" in from each edge of one side and draw a vertical line on the side pieces. This is how far in the shelves need to be glued so that the can is able to roll through them. The measurement will vary depending on which size of unit you are building.





**Step 5** Glue the pieces together. Supposedly you can use Elmer's glue but my husband was getting irritated that it was taking too long to dry. So he found a tube of caulk (yes we're the kind of family that has caulk on hand most of the time) and that was faster but still not a great or sturdy long term solution. He highly recommends purchasing a quick-drying tacky or gel type of glue. Here is the order that we glued the pieces in:

- Top and bottom shelves glued to one side and to the back piece
- Middle shelf glued to that same side
- All three shelves glued to the opposite side
- Front pieces attached with extra tabs adhering to sides and bottom of shelves

If you didn't cut the sides and back as one long piece you would need to glue those together first.



**Step 6** Cut some little notches out of the side pieces near the bottom to enable you to pull the cans out more easily (we forgot to do that step before I took these pictures). Put your new unit in your pantry or on a shelf and load it up with cans! YAY!!!





In the instructions it says you can paint all of the cardboard pieces but we didn't feel like taking the extra time and I don't really care if they look ugly. Plus every time I look at my WonderMill box I can think about how much I love my wheat grinder. Hehe. However, we have heard that they will be stronger if you do go ahead and paint them, so I guess it can't hurt.

Some additional tips from Food Storage Made Easy found at <a href="http://foodstoragemadeeasy.net/babysteps/step-1-shelves/">http://foodstoragemadeeasy.net/babysteps/step-1-shelves/</a>

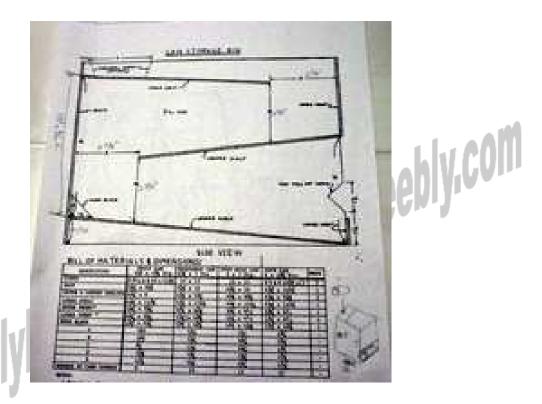
- Don't let small spaces intimidate you. For a comprehensive list of helpful ideas view our Small Spaces Storage Solutions post
- There are a wide variety of shelf options available. Determine the amount you feel comfortable spending and consider what will suit your needs best.
- Options for canned goods and other Three Month Supply foods:
  - o **Build Your Own** Cheap & offers the most flexibility, but time-intensive
    - Free plan for building cardboard rotating can racks http://foodstoragemadeeasy.net/2009/02/16/build-your-own-can-rotating-rack/
    - View the resources section below for other plan options
  - o **Inexpensive metal or plastic shelving** (i.e. from Walmart) A cheap and easy way to get started, shelves may not be as durable
    - Julie opted for plastic, Jodi got metal both work!
  - o **Higher quality metal shelves** Heavy duty hardware store shelves should have no problem with bowing or collapsing under heavy weights.
  - **Deluxe Can Rotation System** Most expensive option, but very convenient for easily rotating through foods
- Start with one set of shelves and add more as your food storage grows.
- Plastic may be better than metal for storing heavier items (cheap metal shelves tend to bow in the middle).
- Adjustable shelf heights will be useful as you store different types and sizes of foods and cans.
- Clear a space near your shelves for 5 gallon buckets/water containers/etc. Cover with old carpet or pallets to avoid storing directly on concrete.
- Make sure to check out some of these Creative Uses for Old #10 Cans (http://foodstoragemadeeasy.net/2009/06/04/what-to-do-with-extra-10-food-storage-cans/)submitted by our readers.

#### How to build cardboard rotating can racks



**Step 1:** 

#### Diagram to build your own can rotating rack food storage shelves out of cardboard:



This diagram can be a little bit complex so we did a step-by-step tutorial you can view at our blog post <u>"How to Build Your Own Can Rotating Rack"</u> (http://foodstoragemadeeasy.net/2009/02/16/build-your-own-can-rotating-rack/).

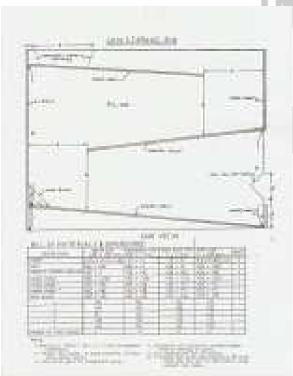
#### A Pantry Paragon; or, How to make your own can storage bins

http://mormonfoodstorage.blogspot.com/2008/09/pantry-paragon-or-how-to-make-your-own.html

We visited my husband's grandparents for the weekend. I've mentioned them in the blog before. Grandpa is an engineer, and this is evident by the way their house is planned and organized. Visitors love to look through their house at all of the good ideas in each room. The pantry is no exception.



Here is a picture of their pantry. As you can see, Grandpa has made his own can rotating storage bins out of painted cardboard. He likes this version because they are small and versatile, and can fit into a variety of pantry situations. Of course his version is also much cheaper than the commercial systems.



I asked if he could explain how these are made. To my surprise, he

pulled out an engineering drawing with exact instructions. He gave permission for me to share the plans with the readers of this blog. These plans are for non-commercial home use only.

Added 1/6/09: Because I couldn't put a pdf file on Blogger, and because I got sick of emailing these out, the nice gals at <u>Food Storage Made Easy</u> have posted the plans on their site http://foodstoragemadeeasy.net/fsme/docs/shelfplan.pdf.

Added 2/16/09: Jodi at Food Storage Made Easy made a cardboard can storage bin from Grandpa's instructions. They took pictures of how they did it! Check out their advice http://foodstoragemadeeasy.net/2009/02/16/build-your-own-can-rotating-rack/.

He saved good quality cardboard and cut it to the dimensions indicated on the paper. It's important to cut the cardboard with a razor blade, he says, so the edge of the cardboard is square, so it will glue together correctly. He says that you need to stick close to those measurements in order for it to work. He glued it together with white glue. After it was assembled, he painted it. Any paint will do, he says. The paint significantly increases the strength of the cardboard. He has been using the bins pictured here for about 13 years, and they are still in good condition. Each bin is labeled, which makes it easy to find exactly what they want when they need it.





rama. They use the bungee cords to keep the jars on the shelf in case of an earthquake.

All of the food stored in their pantry is what they use routinely. There are four cans of things like powdered eggs that they have had for years and have not used, but otherwise they store what they eat and eat what they store.

#### How to Make a Cardboard Box Storage System from

http://www.wikihow.com/Make-a-Cardboard-Box-Storage-System originated by: Hipgirl, Be Happy, Krystle, Benn

\*\* My daughter used this in her dorm. She covered it with used wrapping paper to make it look less "dorky".

If you have a lot of small supplies to store but would rather not invest in a permanent storage system yet, you can make your own from boxes and add to it as your collection grows. It's not the sturdiest system, but it's flexible, easy and inexpensive, and that might be just what you're looking for!



#### Things You'll Need

- boxes
- scissors or box openers.
- tennis ball cans (optional)
- tape

1 - **Get the boxes.** If you can't find them locally, look online. You can use any measurements you want, as long as four long boxes (drawers) fit into one cubic box (compartment). Here are some suggested measurements and quantities: 25 to 500 cubic boxes - 13 x 13 x 13 inches (33 x 33 x 33 cm)
25 to 900 long boxes - 12 x 6 x 6 inches (30.5 x 15.25 x 15.25 cm)



2 - Assemble the cubic boxes into a shelving unit.

Cut the flaps on one side.



Tape the cubes together - front, back and side.

When taping is completed, put the completed shelving unit against a wall.







- 3 Assemble the long boxes, which will be drawers. Cut out a square at one end of the box. Four drawers fit in one compartment.
- 4 Load your inventory in the drawers.





Write the description on the box. Then, put the drawers in so that the order makes sense.

Sort the drawers alphabetically.

Alternatively, sort the drawers so that things you use most often are at arm level, easiest to reach, and things that are less frequently used are lower or higher.



Slide the drawers into the compartments.



Use compartments without the drawers for larger objects.

If the cans are almost full and you're worried about stuff falling out, you can pad under the can's open side (under the flap) to prevent inventory from falling out.

One thing to consider is structural integrity. You can improve on that ten fold by adding truss-like structures in a few of the compartments. You can also laminate (glue) a sheet of cardboard (use the cut flaps) to sides of the overall shelving unit or between layers of compartments.

Use the cut flaps to create "grid systems" inside the boxes. i.e., Select six of the cut off flaps, mark them into thirds, then cut all of them half way up at the marks on the same side. Once all of the flaps have two cuts half up, slide the cuts onto eachother to form a grid (it will look like the spacers inside a case of wine). This gird would be for the larger boxes. You will then have a box with nine smaller, more shallow compartments. Ideal for stockings, scarves, yarn, paper rolls. Besides using all of the box and creating more organization space, the grids add support within the structure.

#### Warnings

- Put heavy items in the bottom row.
- To prevent the storage unit from falling forward, fasten it to the wall before use. Get some screws and wide
  washers, with holes narrow enough to prevent your screw heads from going through. Put your screws through
  their washers, then drive them through the back of some of the upper boxes (3 at least) into a stud in the wall,
  or into a previously installed dry-wall anchor.

**How to Build a Rotating Canned Food Shelf** from <a href="http://www.wikihow.com/Build-a-Rotating-Canned-Food-Shelf">http://www.wikihow.com/Build-a-Rotating-Canned-Food-Shelf</a> by: Jpdunn42, lickety, Puddy, WikiBunny

\*\* One of my neighbors made two of these and loves them.

Storing canned food in your kitchen cabinets is an inefficient use of space and you will often find old cans in the back. This easy-to-build shelf system will solve the problem by rotating the cans. The cost is a small fraction of the price of retail canned food systems. There are many variations so modify the plans to suit your needs and abilities.



#### Things You'll Need

- 4 casters (3 inch)
- 2.5 sheets 3/4" plywood
- MDF or lumber
- Wood glue
- 2 inch screws
- Table saw
- Circular saw
- Router with 3/4in bit
- Drill

**Decide the size and number of shelves you need.** This article will cover a 5-shelf system that is 32in wide, 24in deep, and 64in tall.

#### Cut the plywood on a table saw or with a circular saw.

- 1. Cut one full sheet in half length-wise. From each half, cut a shelf at 32in. (should leave 64in for the sides).
- 2. Cut the other full sheet in half length-wise also. Cut each half in thirds at 32in each.
- 3. Cut the half-sheet of plywood at 32in. Cut the 32x48 piece in half (24x32). Set the remaining 16x48 piece aside for later. You should have 2-24x64 and 10-24x32.



Detail of slot dimensions.

**Using a router and straight edge, rout slots into the sides 3/4in. wide and 1/4in. deep.** (An alternative is to attach rails that the shelves will rest on. The slot method is stronger and will not interfere with the rolling cans.)

- The shelves need to have a 1:12 slope (1in. drop for each 12in. run).
- For standard cans, the distance from the top of the input shelf to the top of the corresponding output shelf is 8in.
- For standard cans, the distance from the top of the input shelf, to the top of the next output shelf is 4in.
- For standard cans, the input shelf is 3.5in shorter than the output shelf.
- For larger cans, add 1 inch to these dimensions.
- Draw outlines for all slots.

**Trim the shelves.** The finished outside width of the shelf system will be 32in. The shelves will fit in a slot 1/4in deep. Therefore, the width of the shelves is actually 31in. Each input shelf also needs to be trimmed on the back to allow a space for the can to drop. For standard cans, this gap needs to be 3.5in.

Lay one side flat on the ground with the slots facing up. Insert the shelves into the slots and place the other side on top.

Drive 2in. screws through the side and into the edge of the shelf. Put two screws in each shelf.

Turn the unit over and drive screws in this side also.



Turn the unit over so the back is facing up. Attach the pieces that were cut from the input shelves to prevent the cans from falling off the back.



**From the 16x48 scrap plywood, cut 5 pieces 2x32in.** Turn the unit over so the front is facing up. Attach the 2x32in. pieces to block the cans from falling out the front.

With the remaining plywood and/or additional scrap you have laying around, build a base that the casters will attach to. Stand the unit upright and attach it to the base.

**Decide the configuration of cans that you need.** Each row will need to be about 1/2in wider than the can. On the table saw, rip 1/4in-wide strips from plywood, MDF, or dimensional lumber. MDF and lumber work best. Attach them to the shelves with wood glue.



One problem you may have is the cans getting miss-aligned when they drop down.



A solution for this is to add a divider connecting the row dividing strips, filling the gap. Cut cardboard in a trapezoidal shape to fit over the two row dividers. Cut out the center material of the cardboard and glue the flaps to the row dividers.

Another problem occurs when the gap is too large for the cans. The can can get blocked, preventing other cans from dropping down.



A solution for this problem is to glue wedges at the back of the lower shelf. This will cause the can to roll forward before the next one locks it in. The wedges can be cut from the same material used for the row dividers. They should be large enough to move the can forward.

The rotating canned food shelf is ready for use. Add labels to the front of each row to identify the contents and load cans in the top portion of each shelf.

- A simpler design is possible when you have easy access to the back. This allows you to load the cans in the back and they simply roll forward.
- This shelf system can accommodate any can size even #10 cans. Just measure the diameter and length of the can and allow at least 1/2 inch clearance.
- The casters are very important. Experience has shown the mobility they add is a valuable convenience.
- The same concepts can be applied to build this shelf system fixed in a closet. Just use rails (screwed into studs) to support the shelves.
- For added stability make the base larger than the footprint of the shelf unit. The casters should provide support a couple inches in front of and behind the shelf unit.

#### Warnings

- Power tools can be dangerous. Be careful.
- Always wear safety glasses when operating or using any type of power tool.

# "Imagination is more important than knowledge" Albert Einstein

How to Make Use of Dead Space Under the Stairs from <a href="http://www.wikihow.com/Make-Use-of-Dead-Space-Under-the-Stairs">http://www.wikihow.com/Make-Use-of-Dead-Space-Under-the-Stairs</a> by:Flickety, Rolokoko, Zoe Volt, Lillian May

Space under the stairs can be put to productive use rather than being dead space. This article provides some simple ideas for making the most of your stair area.



- Under stair space
- Wooden panelling (cedar) if desired
- Shelving
- Hooks
- Door/wall panelling if desired

**Use it for storage.** Space under the stairs lends itself wonderfully to storage. If you are handy with construction, line the space with cedar panels and add some hooks and shelving space. Store winter clothes in this area off season, along with other items that need protection from insects. If the space is large enough, consider adding a linen cupboard space to one end and use the rest of the space for clothing, shoes, etc. It can also be a great spot for leaving the vacuum cleaner and brooms.

**Use it for sports gear.** Sports gear can take up a lot of space and it can come in all sorts of odd shapes that don't look great sprawled around the house. Consider using the under stair space area to hang hockey sticks, shelve soccer boots and store camping gear. If your family has a range of favourite sports, hang hooks and designate shelving areas for different sporting equipment.

**Turn the space into a laundry.** Laundries in cupboards are commonplace nowadays but why not take it one step further and put the laundry in a cupboard under the stairs? This may well free up the laundry room space for another room space, such as a study. Provided the plumbing is not an issue, this could be a neat solution for a tidy laundry space. Be sure to vent the dryer outside to prevent moisture build-up.

**Make it into a study.** It might be the perfect spot for the computer, filing cabinet and a desk. In small places, this may be a better solution than trying to share space in another room for a study, where noise and other distractions might interfere with use of the study space. Add doors etc. as necessary; if you cannot add doors, perhaps add a fold-out screen to help shield your work space and provide a break between the study and the thoroughfare next to the stairs.

Make a reading nook. Add a sofa, a lamp table with lamp and a small bookcase. Instant special space for reading only.

**Line it with shelves for books.** This can be a great space for a small library and helps to keep books from spilling out elsewhere. Passers-by can see books and take them as they grab their attention.

Add a sofa bed and bedside tables. By day this can serve as a private space for reading and relaxing. However, if you have guests and you don't have another bedroom for them, the sofa bed will enable you to create and instant guest room under the stairs. Consider providing a foldaway screen or curtains as a privacy barrier that can be removed during the day.

There are many other possibilities too. It all depends on what sort of space you have, its dimensions and the type of traffic passing by.

Under-Stair Storage Cabinets http://www.workbenchmagazine.com/main/wb305-stair01.html

\*\* One of my neighbors made this for under his stairs to the lower and upper levels of his split-level home. He had to purchase the plans as you will see later on.



Issue #305 - February 2008 "The cabinets roll out for easy access to the items stored in them, and they add a finished look to the area when they're stowed away."

Are you afraid of what might be hiding under your basement stairs? You can tame that monstrous mess and reclaim living space in your basement with these rolling storage cabinets. They're designed to squeeze every available inch of space out of an awkward area. The cabinets roll out for easy access to the items stored in them, and they add a finished look to the area when they're stowed away.

See <a href="http://www.workbenchmagazine.com/main/pdf/wb305-stairstorage.pdf">http://www.workbenchmagazine.com/main/pdf/wb305-stairstorage.pdf</a> for instructions.

Here is a shelving idea for under stairs from <a href="http://www.smartfurniture.com/">http://www.smartfurniture.com/</a> Herman Miller furniture.



<sup>\*\*</sup> Picture either of these under the stairs or along a garage or shed wall.

Create Your Own Minimalist Storage with Hungarian Shelves <a href="http://lifehacker.com/5155385/create-your-own-minimalist-storage-with-hungarian-shelves">http://lifehacker.com/5155385/create-your-own-minimalist-storage-with-hungarian-shelves</a>



If you're looking for sturdy wall-hugging shelving that doesn't require fancy custom braces or brackets, check out the industrious design of these Hungarian shelves.

What makes them "Hungarian"? Instructables user Juliofo ran across the design while visiting a friend in Budapest and was told they'd had been designed by a local professor—but if you know another name for this innovative style, by all means, share it in the comments. The design itself is simple but sturdy: one set of boards attached vertically against the studs of the walls, another set of boards serves as the shelves.



The two segments are held together by series of mortise joints, shimmed with wooden wedges. Save for screwing the vertical support pieces into the wall studs, the entire affair is held together without any screws or glue—and this is all explained in a bit more detail at the Instructables post. While the example Juliofo uses for his tutorial is rather plain, another Instructables user mtemple was inspired by his design and created a more polished version, complete with detailing on the vertical supports as seen in the photos above right.

If you have your own elegant DIY wall storage solution, we've love to hear about it in the comments below.

#### **How to Make and Install Hungarian Shelves** [Instructables]

Send an email to Jason Fitzpatrick, the author of this post, at <a href="mailto:jason@lifehacker.com">jason@lifehacker.com</a>.

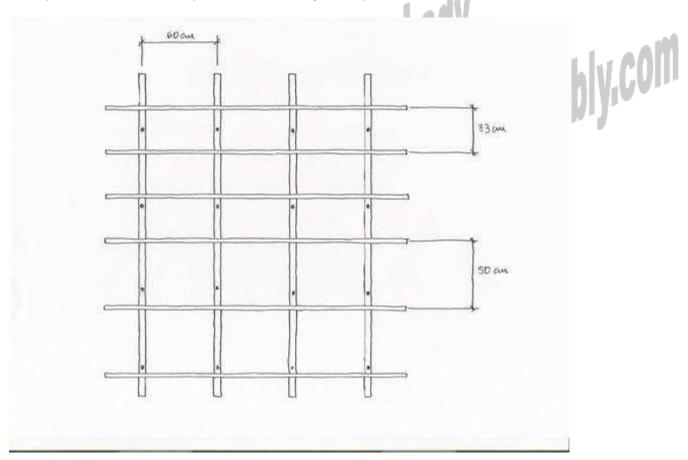
How to Make and Install Hungarian Shelves <a href="http://www.instructables.com/id/Hungarian-Shelves/">http://www.instructables.com/id/Hungarian-Shelves/</a>

First time I saw these shelves was in Budapest, at a friends apartment. I was told they had been designed by a physicist. That's why I think they are safe. The ones in the photos have been up for more than a year now.



### step 1 The model 240 cm by 240 cm

This is just one model. You can personalize the design to fit your needs.



#### step 2 The materials

For the model showed in Step1 the materials are:

4 sticks of pine of 240 cm by 5 cm by 6 cm (5 is front; 6 is deep) (photo1) 6 selves of DM of 240 cm by 22 cm by 3 cm (photo2)

4 wall metal peg screws to hold large weigths (one for each stick) (photo3)

12 regular wall plastic peg screws to hold medium weigths (three for each stick) (photo4)











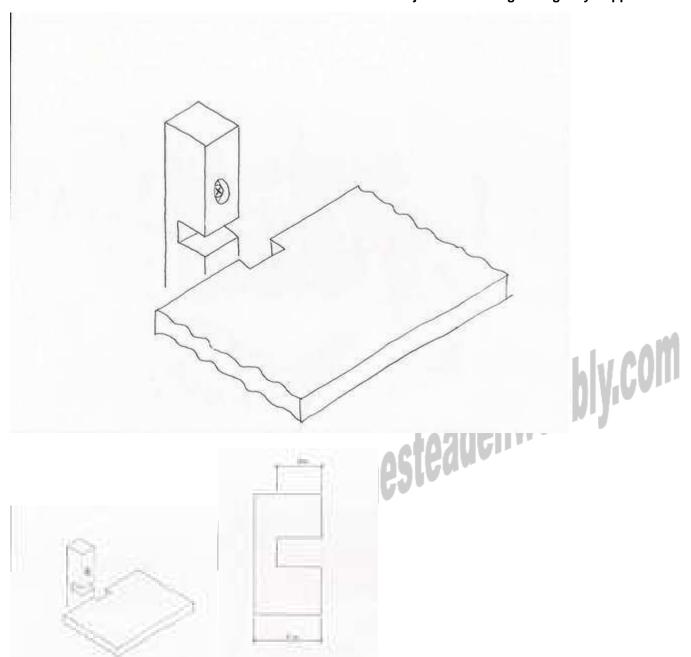
step 3 Cut off mortices on sticks and shelves

The whole set is assembled like pieces in a puzzle without glue or screws.

In the sticks make a mortice for every shelf. In the shelves make a mortice for every stick.

In our case this means 6 mortices in each stick and 4 mortices in each shelf.

As a rule, in sticks make a mortice 2/3 deep of the side of the stick and in shelves make a mortice 1/3 deep of the side of the stick. (In the example this means 4 cm in sticks and 2 cm in shelves because the side of the stick is 6 cm).

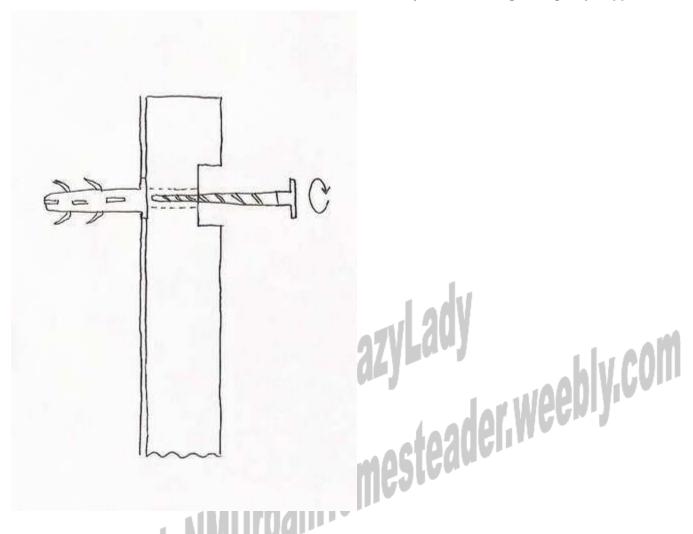


## step 4 Hold vertical sticks on the wall

Use the strong screw in the middle of the stick.

Check verticality with a bubble level.

Fix the other 3 screws in every stick.



#### step 5 Finishing

Once all the sticks are on the wall, assemble the shelves and VOILA! you have it done.

BUT THERE IS STILL ONE MORE THING...

PLEASE DO NOT MISS THIS DETAIL WHETHER YOU THINK IS IMPORTANT OR NOT!

The last thing to do is to insert wedges of wood under all the shelves and in every stick untill all the shelves are ortogonal (=perpendicular) (=90 degres) to the sticks.





#### step 6 Another example

This is another one we made for a "used things" shop in our city.

It is 15 meters wide and 2,5 meters high with vertical sticks every 0,5 meters.

It was made with all kind of particles boards we had around.

As it can be seen in the photo it has no mortices in the selves --just in the vertical sticks-- and it works too.





"Anybody who has any doubt about the ingenuity or the resourcefulness of a plumber never got a bill from one."

George Meany

\*\* Got a construction site near you or a friend who is a plumber? Well, ask for their discards and then look at these ideas. For non-mobile shelves one person I know used discarded PVC pipes and filled them with quickcrete to strengthen. To fancy them up – paint any color you want.

Make Rolling Shelving out of Pipes from <a href="http://www.simplifiedbuilding.com/project">http://www.simplifiedbuilding.com/project</a> ronh.php



**Rolling Storage Rack** 

This shelf system made from Kee Klamp fittings allows you to build a convenient but durable rolling shelf system. The shelf heights can be custom set to allow for as many or as few shelves as you need. Casters on the bottom of the unit make it easy to slide in and out of place in your garage or workshop.

#### Quote #44 - RON HAZELTON'S SHELF as seen on HOUSE CALLS (alum fittings)

Approx actual dimensions\* of shelf:

L: 4' 3-9/16" W: 2' 3-9/16" H: 5' 1-7/8"

Wood Shelf dimensions:

L: 3' 11-1/2" W: 1' 11-1/2"

Inquire for casters.

teader Weeply Coll You can also build this shelf using different sizes of KeeKlamp or KeeLite and/or fence pipe from a local hardware store or pipe distributor.

\*Dimensions not including casters.



#### Quote #43 - RON HAZELTON'S SHELF as seen on HOUSE CALLS (pipe)

Approx actual dimensions\* of shelf:

L: 4' 3-9/16"

W: 2' 3-9/16" H: 5' 1-7/8"

Wood Shelf dimensions:

L: 3' 11-1/2" W: 1' 11-1/2"

Inquire for casters.

You can also build this shelf using different sizes of KeeKlamp or KeeLite and/or fence pipe from a local hardware store or pipe distributor.

\*Dimensions not including casters.





#### **Rolling Garage Storage Shelf**

<u>Download SketchUp File</u> This is the actual SketchUp diagram and will require this software to view.

http://www.simplifiedbuilding.com/library/sketchup/usercontrib/430513386455a6ffc1fbf6 2.skp

This is rolling garage storage shelf that is to be featured on a home improvement television show called Ron Hazelton's House Calls. More information about Ron's show can be found at www.ronhazelton.com

Contributed by: Chris Pollock Posted On: November 14, 2006

#### Building Shelves with Pipes <a href="http://www.simplifiedbuilding.com/blog/category/shelves/">http://www.simplifiedbuilding.com/blog/category/shelves/</a>

\*\* My neighbor has used these ideas to build all kinds of shelving in his garage, workshop and greenhouse and all from scrap piping he got from building sites!



Robert Gutmann constructed this modern shelf and desk using pipe, glass, and Kee Klamp fittings. Kee Klamp fittings create an interesting modern look and also allow for simple and straight forward construction. This particular shelf and desk was built in an apartment on Broadway in New York City.

If you are interested in modern furniture design, search our blog for other products as well as check out our steel and aluminum fittings.

#### **Construction Pictures**



# **Zero Point Shelf by Adam Byers**

Adam designed a shelf unit that is setup not to penetrate the ceiling, walls or floor. It uses tension, pipe and fittings to create a floating shelving structure. This would be a great setup for people who have to move frequently and/or have leases that do not allow for holes to be put in the walls, ceilings or floors. On top of being extremely functional with fully adjustable shelving, it just looks cool!



The only fitting he used in this project was 61-6 flange that he bored out to allow the pipe to pass through. If you are interested in doing this project but do not want to bore out your own fittings, we do provide boring as a service (additional cost for each fitting). For complete instructions on building this shelf unit see <a href="http://www.instructables.com/id/Zero-Point-Shelf/">http://www.instructables.com/id/Zero-Point-Shelf/</a>.





## Here are some additional ideas from this site:



Above is a custom display rack used to display products at a tractor supply store. The fittings and pipe have been powder coated black to give the unit a sleek look.



Here is a cart used by the Kee operation in Canada. It has a place for your laptop as well as a complete array of tools. It is on casters so that it can easily be moved around the warehouse. How would you like to see this thing in your shop!!!



Adam Byers got creative and constructed a custom shelf on casters made from Kee Klamp fittings, fence post and some plywood. Instructions to build this project are posted on <a href="http://adambyers.com/kee-klamp-shelf-not-so-much-on-the-cheap/">http://adambyers.com/kee-klamp-shelf-not-so-much-on-the-cheap/</a>) and on <a href="http://www.instructables.com/id/Kee-Klamp-Shelf/">http://www.instructables.com/id/Kee-Klamp-Shelf/</a>). Great project Adam, thank you for sharing it with us.







The guys over at Kee have constructed this awesome work cart for use in one of their warehouse locations. You can see that it has storage below for boxes, a place to store tools, a place to pack boxes, and even a platform for a laptop computer. To top it all off it's on casters so that it can be rolled around to different locations, infill panels to enclose the space below and a nice stainless steel desktop. Great project!

This rolling storage shelf will also be featured on an upcoming episode of Ron Hazelton's HouseCalls (http://www.ronhazelton.com/). The frame is made from fence posts and fittings. Casters are attached to the bottom to make it portable. If you have questions about constructing a shelf like this please contact us (http://www.simplifiedbuilding.com/contact\_us.php).



Find parts list, more pictures and a sketchup diagram for this project at http://www.simplifiedbuilding.com/project\_ronh.php



We have been working several months with Chris Logue to help him bring his TV Platform design from concept to completion. The finished product has finally been refined and is being shown at a furniture show in Portsmouth, NH this weekend. You can see more about Logue Studios by visiting: <a href="http://loguestudio.com">http://loguestudio.com</a>

Chris's project has come to embody many of the different ideals that we hold to at Simplified Building Concepts. We are involved not only in providing Kee Klamp fittings, but in helping to provide a web presence. If everything goes according to plan we will even be helping him establish an e-commerce site to sell his furniture and provide back-end customer service. If you would like to find out more about the other services that we offer, please visit: <a href="http://loguestudio.com">http://loguestudio.com</a>

Here are a few new pictures of some retail display racks made with pipe and Kee Klamp fittings. We can help you to design/build racks similar to these. If you are interested in applying Kee Klamp fittings in retail applications please contact us (http://www.simplifiedbuilding.com/contact\_us.php).





This is a desk / drafting table designed by Sam with Google's free <a href="SketchUp">Sketchup</a>. (<a href="https://sketchup.google.com/">https://sketchup.google.com/</a>) program. The fittings make it possible to adjust and customize this desk in any way you see fit. The shelves can be swung out in any direction and can be raised and lowered. The fittings are durable so you can tear this down, move it, and it will last assembly after assembly. You might also use the pipe monitor mounts, mentioned in a previous article (<a href="http://www.simplifiedbuilding.com/blog/?p=99">http://www.simplifiedbuilding.com/blog/?p=99</a>), to attach computer monitors to the structure. Sam is our primary customer service rep, so if you have questions about the desk feel free to give him a call. He will be glad to help you design-build your own desk.

How to Build Built-In Bookcases from http://www.ehow.com/how 2134235 build-builtin-bookcases.html By EliazarPlatt

A bookcase can be either an eyesore or a conversation piece. If you want the latter, built-ins are the way to go. They're fairly easy to build and can actually save you money.

## Things You'll Need:

- 3/4 inch plywood
- beadboard
- crown moulding
- wood screws
- hinges
- shelf pins
- table or Panel Saw
- paintable/stainable edge banding
- square
- drill
- tape measurer
- glue
- finish nailer or small hammer

#### finish nails

Step 1 Determine the size of your bookcase(s). Go no deeper than 20 inches unless you intend display other objects besides books. Stay at least 2 to 3 inches from the ceiling to leave room for crown. Any space over 30 inches wide will require additional support.

Step 2 Make a cutlist. Remember to include 3 inch tall toebases to support the case and to leave room for crown (for example: a room with a 9 foot ceiling should have a bookcase no taller than 103 inches). Both sides, top, bottom and shelves should be made of 3/4 inch plywood. The back should be made of beadboard.

Step 3 Make your cuts.

Step 4 Sand every surface that will remain visible (including crown moulding). Start with 100 grit sand paper and sand again with 120. If you have an orbital sander you'll save yourself a lot of time.

Step 5 Build the boxes. Attach sides, top and bottom. You will need at least 1 fixed shelf approximately halfway between the top and bottom of the box. All other shelves can be adjustable just remember to make the shelves at least 12 inches apart to accomidate taller books.

Step 6 Edgeband. Glue edgebanding onto the face (front) of the bookcases. Let dry. Trim edgebanding and wipe off excess glue.

Step 7 Attach the beadboard backs. If your bookcase is taller than the beadboard you purchased, hide seams behind shelves.

Step 8 Paint or stain your bookcases and crown moulding. Use as many coats as necessary. You may need to prime the bookcases if you are using a lighter colored paint.

Step 9 Install. Level toebases first. Attach bookcases to toebases and wall studs always checking that you are still level. When you are satisfied, attach crown moulding with finish nails. Cover nail holes with filler and touch up paint.

## Tips & Warnings

- Always measure twice
- Team lift heavy objects
- For an even better look use crown moulding along your entire wall and wrap around the bookcases creating a seamless look.
- If you're painting inside, open a window

How to build rolling shelves from http://www.ehow.com/how 2202619 build-rolling-shelves.html By EliazarPlatt

#### Things You'll Need:

- (1) 5 x 10 sheet of plywood
- Edgebanding
- 4 lockable caster wheels
- Tape measure
- Drill
- Wood screws

- Sander
- · Paint or Stain

## Step 1 Make these cuts:

- 1 piece @ 24 inches x 70 1/2 inches
- 2 pieces @ 11 1/4 inches x 70 1/2 inches
- 2 pieces @ 12 inches x 24 inches
- 4 pieces @ 11 1/4 inches x 22 1/2 inches

Step 2 Lay the 11 1/4 inch x 70 1/2 inch pieces on their long 3/4 inch faces. Attach a 12 x 24 inch piece to the bottom and another to the top making a 72 inch x 24 inch box. The bottom and top will stand 3/4 inch higher than the sides.

Step 3 Evenly distribute the 11 1/4 inch x 22 1/2 inch pieces as shelves. Attach making sure they are flush with the front (the face down side).

Step 4 Attach the back. It will fit snugly between the top and bottom and will be flush with both sides.

Step 5 Attach the casters to the bottom, one near each corner.

Step 6 Edgeband the backs and sides of the top and bottom. Flip the shelves over and edgeband the fronts of the top, bottom, sides and shelves.

Step 7 Fill in all holes with wood filler and sand smooth.

Step 8 Paint or stain to your liking.

Step 9 Build as many shelves as you like

## **Tips & Warnings**

- You can attach with multiple shelves with hooks or latches.
- Never paint or stain without proper ventilation.

# PLANS: Simplest, Cheapest Bookcases, What YOU Can Build from 1 Sheet of Plywood from http://knockoffwood.blogspot.com/2010/01/creative-guest-knock-off-wood-bookcases.html

\*\* Ok don't let the pink and frou-frou stuff turn you off. These can be done in manly colors too. Single level and this can be a storage bench (see that design later). Just think of the storage hiding in plain sight!

For \$60 Dollars.



#### **Materials for 2 Bookcases**

1 - Sheet of 3/4" MDF (painted, cheapest option) OR 1 Sheet of 3/4" Hardwood Plywood (wood look) OR 4 - 1x12 pine vNMUrbanHomesteader.weebly.com boards (rustic look) (1x12 is 11 1/2" wide, and can be interchanged with the plywood strips) 10 - 1x2 pine boards (should be less than \$1 each)

# **Supplies**

Glue

2" Nails

1 1/4" Nails

**Wood Putty** 

Sandpaper

Paint, Stain or Varnish

#### **Tools**

Nailer

Saw

Square

**Measuring Tape** 

Sander

**Painting Supplies** 

# THIS PLAN IS FOR 2 BOOKCASES!!!

Have Home Depot or Lowes cut your sheet of MDF into 11 1/2" strips, 8 feet long.

esteader.Weehly.com



Cut your boards to the lengths given in the plan, listed below.



There will not be much leftover.

This is all of the scraps I had from the MDF.



Nail the sides to the shelves. For those of you who have not used a nailer, it's just a powerful staple gun.



Nail the top support, on the front and back.



razyLady omesteader.Weebly.com

Now the legs.



# Trim out the front and back edges of the shelves.



Add the top and trim out the sides of the top.

PL	ANS	S
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Overall Dimensions are shown below.



# Cut List for 2 Bookshelves (YOU CAN HALF THE RECIPE FOR 1 BOOKCASE)

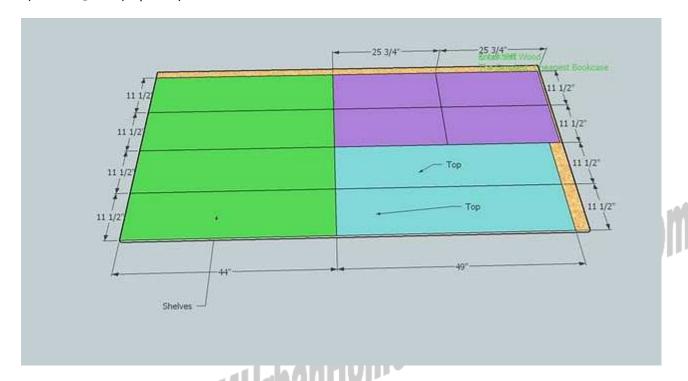
A) 4 - 3/4" MDF @ 11 1/2 x 44" (Shelves)

B) 4 - 3/4" MDF @ 11 1/2" x 25 3/4" (Sides)

C) 4 - 1x2 @ 44" (Top Supports)

D) 8 - 1x2 @ 29 3/4" (Legs)

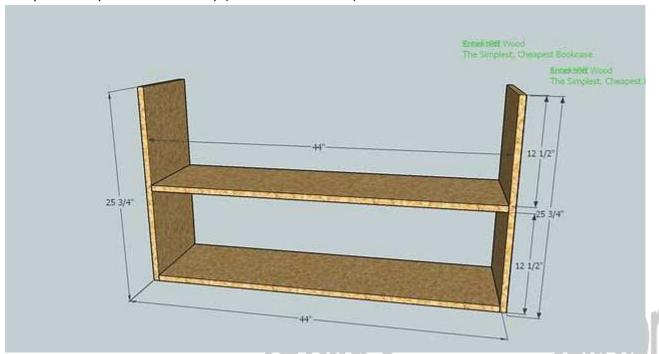
- E) 12 1x2 @ 42 1/2" (Shelf Trim)
- F) 4 1x2 @ 11 1/2" (Bottom Trim)
- G) 2 3/4" MDF @ 11 1/2" x 49" (Top)
- H) 4 1x2 @ 49" (Top Trim)



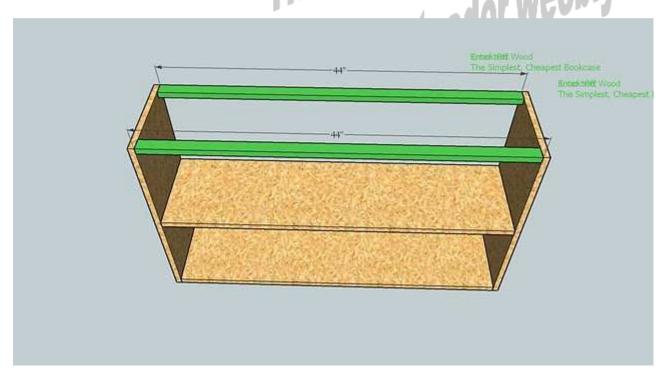
Remeber that the saw blade takes up 1/4" (approximately) so you **CANNOT** mark the plywood and cut. You must mark one cut, cut, mark the next cut and so forth.

**General Directions**. See the post on choosing your wood type. I built my bookcases out of MDF and had success by not nailing within 1" of the edges. I used lots of glue. Cut all your boards first and use 2" nails unless otherwise specified.

Always take a square after each step (See HOW-TO section).



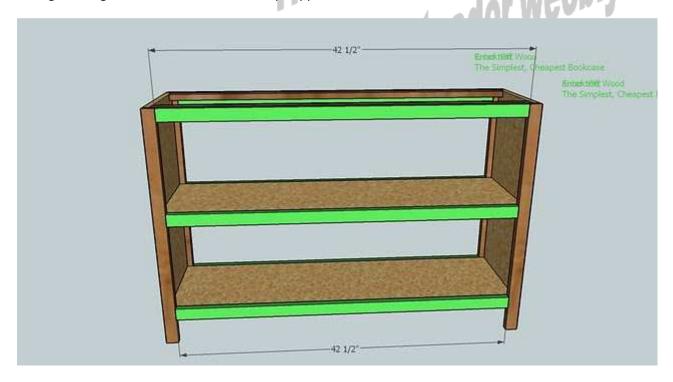
1. Build the Box. Nail the sides to the shelves as shown above.



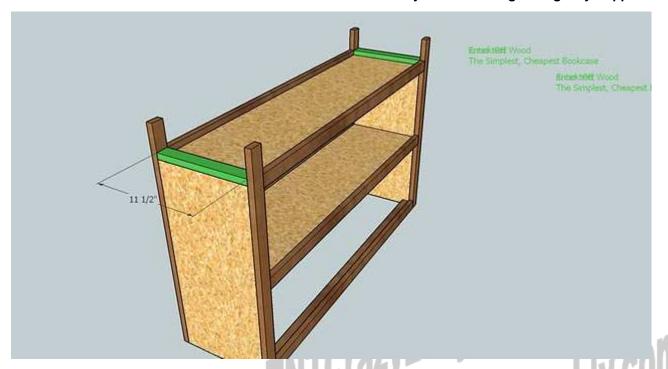
2. **Top Supports**. Add the top supports (C, Green) as shown above.



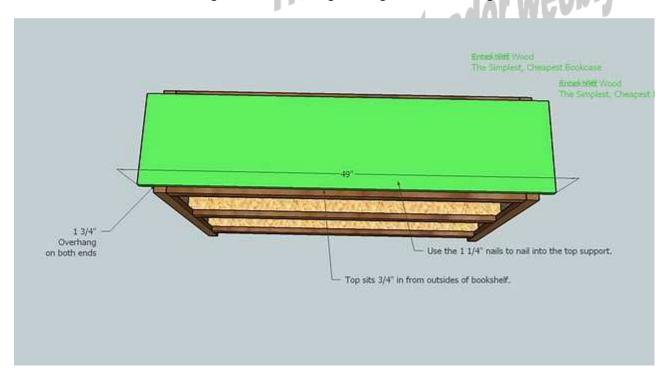
3. **Legs**. Nail the legs, D (Green) in place, as shown above. Keep outside and top edges flush. Make sure you nail through the legs into the shelves and the top support, C.



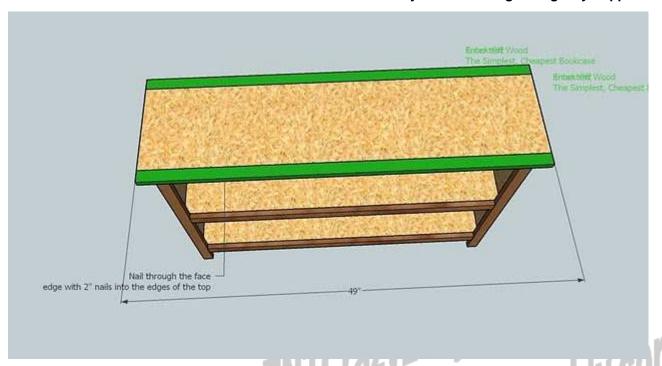
4. **Shelf Trim**. Attach the shelf trim by keeping top edges flush with the tops of the shelf. The top edge of the tabletop trim will be flush with the top support.



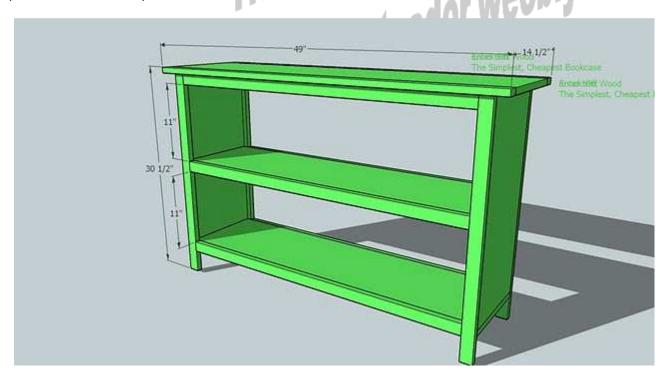
5. **Bottom Trim**. Add the bottom trim, as shown above. Make sure you use the 1 1/4" nails when you nail into the bottom shelf, and not the side edges. Also nail through the legs into the end edges of the bottom trim.



6. **Top.** Center the top on the bookshelf and nail in place. Remember to use the 1 1/4" nails when nailing into the top support piece.



7. **Top Trim**. Trim out the sides of the top as shown above. Make sure you use the 2" nails to nail through the face of the top trim into the tabletop.



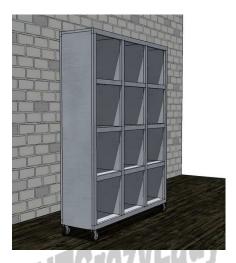
8. Fill nail holes with putty and sand and finish as desired.

PLANS: Large Rolling Cubbies, Endless Possiblities, Build it this Weekend from

http://knockoffwood.blogspot.com/2010/03/plan-large-rolling-cubbies-endless.html

\*\* Again with a little help I made this one and simply LOVE it. I had my neighbor help me modify this a bit to make it deep enough to take Rubbermaid type tubs.

I'm sure there is somewhere in your home you could roll this . . .



And quickly becoming one of my favorite colors is this "eggplantish" pink, with muted undertones. A little tip from someone who has painted tons of furniture, **choose a color that is slightly muted.** When you choose colors that are too bright, your furniture may take on a Dr. Seuss look. Nothing wrong with Dr. Seuss.



Ready to get your lumber cart and roll down the aisle, maybe get a few odd looks?



**Overall Dimensions are shown above.** Height without caster wheels is 60 1/2". Depth is 13" and width is 48". Caster wheels will add approximately 2 1/2" to the overall height. You can purchase different height caster wheels.



Composition for Paint or Rustic Stained Look is pine boards in 1x12 width for the "box" and pine 1x2 boards for the trim

**Composition for "Framed in Solid Hardwood" Look** is 3/4" A1 plywood in choice of hardwood (ie Maple) cut into 1x12 strips (11 1/2" wide) with hardwood 1x2s for the frame.

**Composition for Economical Painted Finish** is 3/4" Particle Board or MDF cut into 11 1/2" wide strips, framed in 1x2 MDF or pine boards.

# **Shopping List**

10 - 1x2 Boards (pine boards are about \$1 each)

5 - 1x12 Boards (pine boards are about \$9 each) OR 2 Sheets of 3/4" A1 Plywood or 3/4" MDF

Wood Glue

Wood Filler

2" Nails for finish nailer

1 1/4" Nails for finish nailer

5 Caster Wheels, shown in diagrams with a 2 1/2" diameter, with screws

Sand Paper

Paint, Stain, Varnish or other finishing supplies

# **Tools**

Saw

Pnematic nailer shooting 2" nails

Drill or screws to fasten the wheels

Measuring Tape

Square

Sander

#### **Cut List for the Box**

2 - 1x12 @ 59 3/4" (Sides)

4 - 1x12 @ 46 1/2" (Shelves)

1 - 1x12 @ 48" (Top)

8 - 1x12 @ 14" (Dividers)

Cut List of Trim (recommend to cut to measurements for exact fit)

4 - 1x2 @ 48" (Top and Bottom Trim)

8 - 1x2 @ 57 1/2" (Side Trim and Divider Trim)

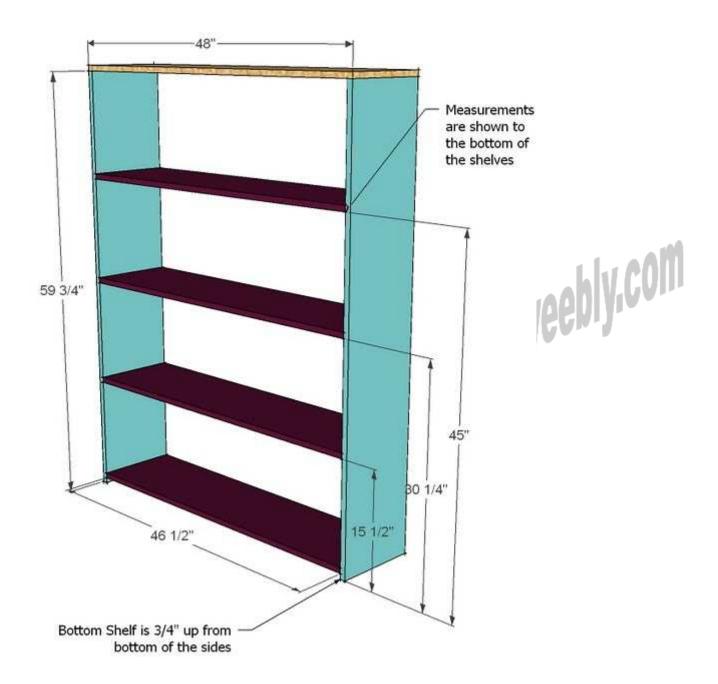
18 - 1x2 @ 14" (Shelf Trim)

3 - 1x2 @ 11 1/2" (Wheel Supports)

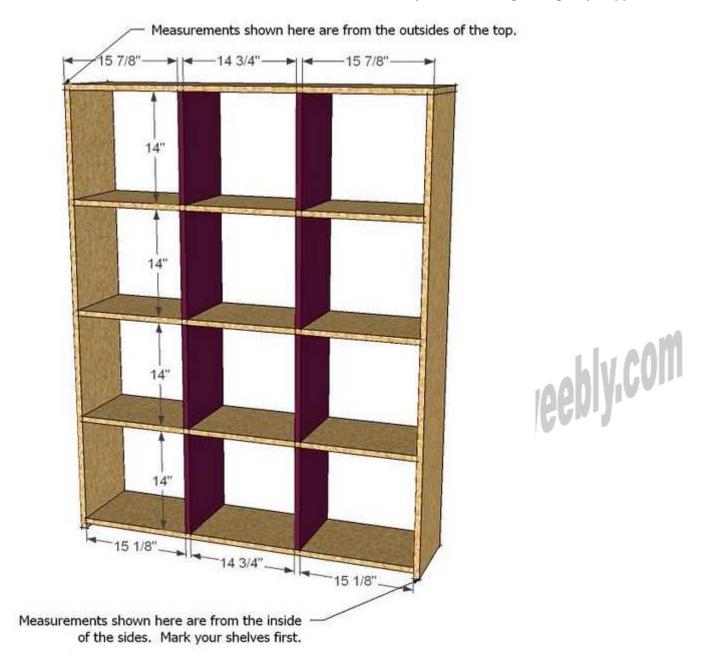
**General Instruction.** Work on a clean level surface. Mark out joints prior to fastening. Take a square after each step to ensure your project is square. Use glue and 2" nails unless otherwise directed. Wear saftey gear and take necessary



safety precautions. If you are working with sheets of plywood or MDF, have your hardware store cut your plywood or MDF into strips that are 8' long and 11 1/2" wide. These will become dimensionally the same as a 1x12 board. If you are working with MDF, avoid nailing close to edges to avoid splitting your MDF whenever possible. You can alternately use drywall screws for MDF or wood screws for wood.



**1. Build the box.** Start by marking out the sides where the shelves will be fastened. It is a good practice to mark on both sides of the shelves to mark where to nail. Remember that the shelves are 3/4" thick. Leave a 3/4" gap under the bottom of the bottom shelf as shown above.

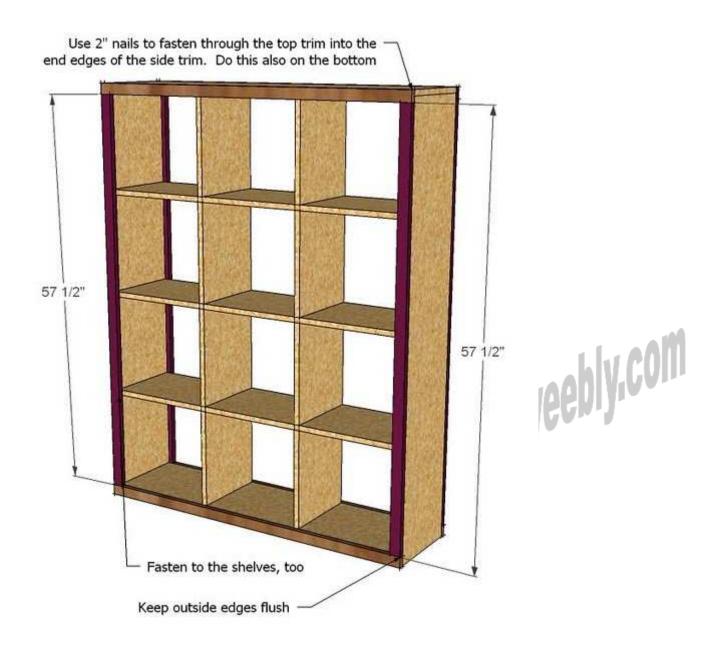


**2. Dividers.** In this step we are just going to fasten the dividers in so they don't move. The trim will actually hold the dividers in place. Start by marking your shelves and top where the dividers will go. Remember that the dividers are 3/4" thick.

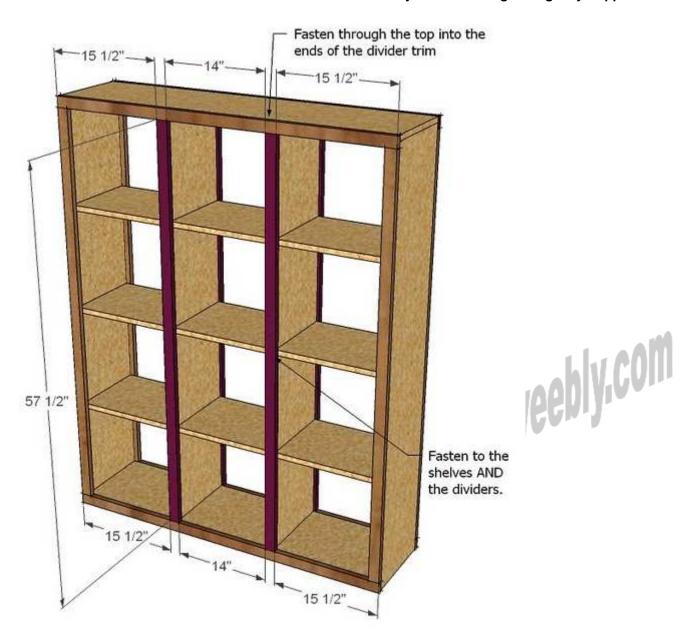
Starting on the bottom shelf, fasten the bottom dividers to the bottom and first shelf. Working your way up, fasten the next level of dividers in place. This time you will only be able to fasten through the shelf on the upper shelf. On the lower shelf, you will need to nail at an angle through the front edge of the shelf into the ends of the dividers. Do this on the remaining dividers. Use 2" nails and glue. Remember, we will add more support in the frame to the dividers.



**3. Bottom and Top Trim.** Check for square. Then using 2" nails an glue, fasten the bottom and top trim in place. Make sure you fasten to any vertical dividers, whenever possible. Keep outside edges flush. Do this on the front and back.



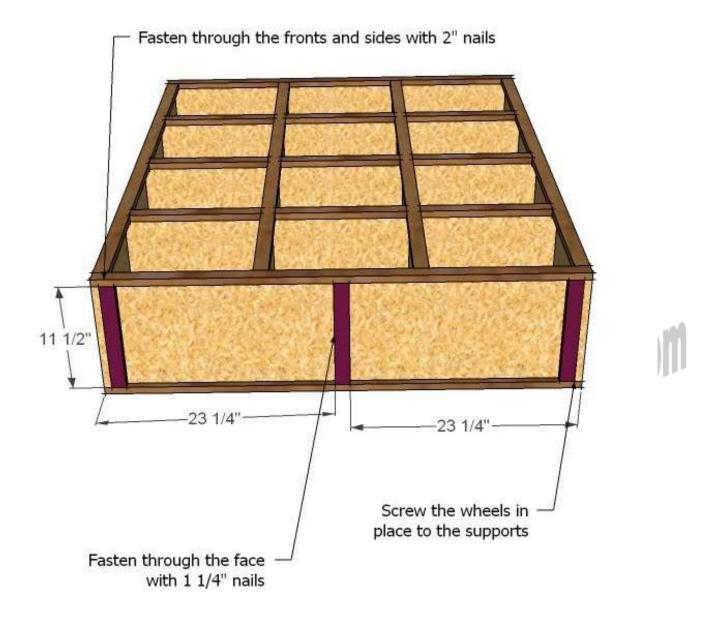
**4. Side Trim.** Fasten the side trim using 2" nails and glue. Check for square and make sure you keep outside edges flush. Fasten to the shelves, too. Also fasten through the sides of the trim from the previous step into the ends of the side trim (as shown above). Do this on the front and back.



**5. Divider Trim.** Measure and cut your divider trim. Mark the bottom and top trim boards as shown above. Fasten the divider trim to the dividers, as shown above. The trim will be centered on the dividers. Make sure you fasten to the shelves too. Use 2" nails and glue. Do this on both the front and back.



**6. Shelf Trim.** Measure and cut your shelf trim, keeping top edges flush with the tops of the shelves as you fasten the shelf trim in place. Use 2" nails and glue. On the ends, fasten through the side trim into the ends of the shelf trim.



- **7. Wheel Supports.** As shown above, fasten the wheel supports to the bottom of the piece. Then attach your wheels to these support pieces.
- **8. Finishing.** Fill nail holes with wood filler and sand and finish as desired.

How to Build a Bookcase With a Single Sheet of Plywood from <a href="http://www.ehow.com/how\_2140843">http://www.ehow.com/how\_2140843</a> bookcase-out-single-sheet-plywood.html By EliazarPlatt

If you want a quick and easy bookcase, look no further. It's easy to make a nice-looking bookcase from just a single sheet of plywood. And it's a lot of fun to make.

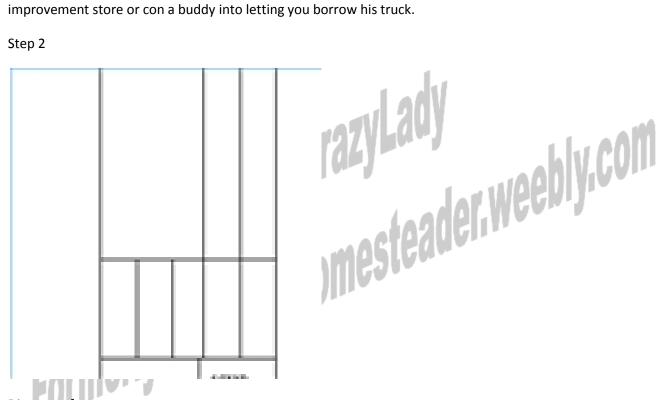
# Things You'll Need:

• 5 foot x 10 foot sheet of 3/4 inch plywood

- Tape measure
- Circular, Table, or Panel Saw
- Wood screws
- Drill/Driver
- Sand Paper or Orbital Sander
- Edgebanding (optional)
- Shelf pins (optional)
- Wood Filler (optional)
- Stain or Paint (optional)

Step 1 Buy a sheet of plywood. If it's too big to fit in your vehicle, you can either have it cut at the home improvement store or con a buddy into letting you borrow his truck.

Step 2



# Diagram of cuts

## Make these Cuts:

- 1 piece at 6 feet x 2 feet 11 1/2 inches (back)
- 2 pieces at 6 feet x 11 7/8 inches (sides)
- 6 pieces at 2 feet 10 inches x 11 7/8 inches (shelves)
- 1 piece at 2 feet 10 inches x 1 3/4 inches (bottom shelf support)

Step 3 Sand all surfaces (if you choose to edgeband as well, do it now).

Step 4 Attach one shelf to the top of the two sides. Make certain that you are flush with top, front and back. (It's easier if you lay the bookshelf down on its face throughout the entire construction process.)

Step 5 Attach the bottom shelf support to the bottom of the sides so that it stands 1 3/4 inches tall (if the bookshelf was standing up). Check that it is flush with the bottom and front.

Step 6 Attach the bottom shelf. Lay its front edge on top of the support. Attach to both the support and the sides. Make sure there is a space of 1 3/4 inches between the back of the shelf and the bottom of the sides.

Step 7 Attach the shelves. To space them evenly you will need a space of

13 3/4 inches between each shelf. But it's your project. You can make all the shelves adjustable if you want or put them in any fixed configuration. Make sure you include the 3/4 thickness of the shelf when you are measuring.

Step 8 Attach the back. Lay the back on top of your face down bookshelf. Make sure it is square with all edged. Attach it to both the sides and the back for exra support.

Step 9 Paint or stain to your liking. Or leave it unfinished for a more modern look.

## Tips & Warnings

- You will have one piece of scrap plywood, approximately 3 x 1 feet.
- Birch plywood is a good choice. It paints and stains well and looks nice unfinished.
- Never paint or stain in a room without ventilation.

# **Workshop Storage Solutions and Plans**

Get 12 Free Workshop Storage Plans: Tool Cabinets, Rolling Carts, Under Stair Storage and More\_from <a href="http://www.toolcrib.com/blog/2008/11/05/12-free-workshop-storage-plans-tool-cabinets-rolling-carts-under-stair-storage-and-more/">http://www.toolcrib.com/blog/2008/11/05/12-free-workshop-storage-plans-tool-cabinets-rolling-carts-under-stair-storage-and-more/</a>

Small Workshop Storage Solutions <a href="http://www.rd.com/small-workshop-storage-solutions/article18096.html">http://www.rd.com/small-workshop-storage-solutions/article18096.html</a>

**Organize Your Garage: Three Storage Projects** http://www.rd.com/organize-your-garage-three-storage-projects/article17886.html

## Step-by-Step Instructions and Pictures of Small Workshop Storage Solutions

\*\* These articles refer back to each other from several URL's/locations. I have attempted to organize them so the information is for one project at a time.

Remember to use that Thinking Cap and picture how you can tweak these to meet your Emergency Supply Storage Needs.

Or consider the fact that storage space of any kind is quite limited; so the better your utilization of the space you do have, the more space you end with for additional storage.

Small Workshop Storage Solutions <a href="http://www.rd.com/small-workshop-storage-solutions/article18096.html">http://www.rd.com/small-workshop-storage-solutions/article18096.html</a>

Tips for getting more storage space out of your small workshop. By Travis Larson

For most of us, a big shop is only a dream. Too often, we're forced to build our ambitious projects in a shop fit only for building birdhouses.

In spite of its postage-stamp size, you can still churn out dining room tables, kitchen cabinets, library shelves and other major projects. The keys to making big things in a little shop are organization, out-of-the-way storage, and nesting or collapsible work surfaces.

If your shop and tools are small but your dream projects are big, here are some ideas that will help. From <a href="https://www.rd.com/familyhandyman?trkid=rdcom\_article\_top">https://www.rd.com/familyhandyman?trkid=rdcom\_article\_top</a>)

## **Air-Compressor Loft**

Air compressors—even small ones—take up a lot of valuable space. To preserve every square inch of floor space, build a little corner shelf overhead. Nestle your compressor into a corner of the floor and measure the size of the shelf you need to fit it. Leave an extra 2 in. of room at the front where you can screw on a 2x2 lip to "corral" the compressor so it won't walk over the edge while it's running. Then measure the height of the compressor to determine the proper distance from the ceiling to the shelf so the compressor has enough clearance.

To build the shelf, start by fastening 2x6 ledger boards to the studs with 5/16-in. x 4-in. lag screws driven into each stud. Screw down a chunk of 3/4-in. plywood on top of the 2x6s for the compressor floor and another chunk on the underside for a storage shelf. A strategically placed 3-in. hole makes it easy to drain the tank from underneath. To really complete this air tool station, solder 1/2-in. copper tubing and attach it to the compressor with a swivel "snubber" hose. Connect an air hose reel for compact hose storage for long-distance needs and a curlicue-style hose for air-at-your-fingertips bench work.

#### **Pay for Service**





A small shop can't handle everything. Most stationary tools are expensive and space hungry, but they can save hours of time over smaller tools like hand planes and belt sanders. When you need an occasional helping hand, find a cabinet shop that's willing to plane, sand, shape and rip the work that you bring in. For example, the wide belt sander in the photo will do a perfect job of leveling a glued-up tabletop in minutes—and you can usually have it done for under \$20. A friendly relationship can also pay off in terms of advice on things like joinery techniques and as a source of raw materials or hardware.

# **Folding Assembly Table**



You may not have room for a permanent assembly table, but you can always clear a spot for this temporary folding one.

Buy a pair of collapsible sawhorses. Screw an old or damaged door (lumberyards often have rejects at rock-bottom prices) to the top of the horses. You'll have a large workspace that folds up and takes very little room to store. Screw two 1-5/8 in. drywall screws up into the edges of the door at the end of each horse. The table will set up in about 60 seconds.

# **Ceiling Drawers**



Eke out every cubic inch of storage in a basement shop with pivoting boxes that hang between the ceiling joists. When a drawer is down, you have easy access to its contents. Use glue and 1-5/8 in. drywall screws to hold together the boxes, then customize shelving for whatever you want to store.



Make the width about 3/8 in. narrower than the cavity it fits in and use double-nutted 3/8 in. x 3-1/2 in. carriage bolts for the two pivot points. Two plywood cleats pivot on 3-in. screws to hold each drawer in place in the "tucked" position. The drawers are perfect for anything you only need occasionally. But be careful to keep contents relatively light so you can safely open and close the drawers. It's definitely not the place to store your anvils.

## **Peg-Board Shelving**





Panel your shop with Peg-Board instead of drywall or plywood and there'll be no shortage of space to hang dozens of hand tools, no matter how small your shop is. Homemade shelving that's specifically for Peg-Board takes the concept

one step further. Use 2x4s and 1/4-in. L-hooks to make the shelves. Chamfer the top back edge so the shelf can be tipped in and tighten the L-hooks for a snug fit against the Peg-Board.

Pre-drill the edges of the 2x4s with a 3/16-in. drill bit and about every 6 in., screw in threaded 2-in. L-hooks to match the holes in your Peg-Board. These shelves are surprisingly strong and can be sized to fit your specific needs.

# **Up-and-Away Storage**



The perfect place to store small quantities of long, narrow offcuts and moldings is right over your head. Build this set of overhead storage racks either in high basement ceilings or in the open trusses in garage shops. Use 2x6s for the vertical hangers and doubled-up 3/4-in. plywood for the lower angled supports. Secure each 2x6 into the framing with two 5/16 x 3-in. lag screws. Screw each hanger into the 2x6 with two offset 5/16 x 3-in. lags. The angle on the supports keeps stuff from sliding off.

# **Swing-Up Grinder-Stored**



Grinders are great tools, but if your shop is cramped, their occasional use doesn't justify a permanent corner of your workbench. Try hinging your grinder to keep it handy but out of the way when not in use. A pair of 6-in. strap hinges and a 12-in. hook and eye with an extra eyebolt are all you need to build this swing-up grinder base.

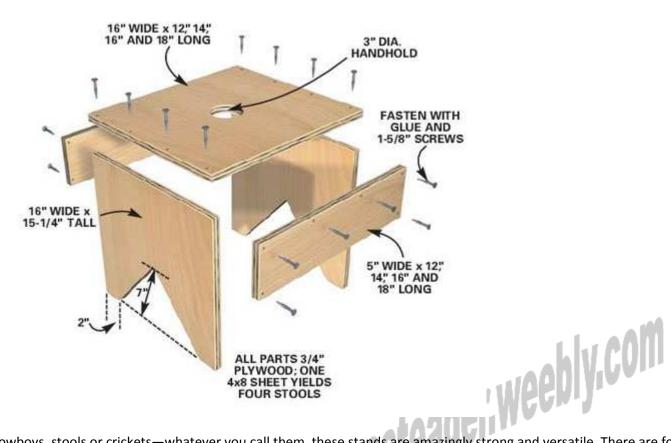


## **Swing-Up Grinder-In Use**

FormerlyNM

First, bend one strap of each hinge. Hold the hinges in place and mark the bend. Then clamp each hinge in a vise so the mark is just above the jaws and hammer it over. Mount the grinder on a block of wood and mortise in the hinges with a router or chisel so the block sits flat on your bench. Add an eye bolt toward the back of the block and mount the hook and eye under the bench top to hold the grinder in place when it's stored.

A Nest of Crickets – Stools <a href="http://www.rd.com/advice-and-know-how/stepbystep-instructions-and-pictures-of-small-workshop-storage-solutions/article114817-9.html#slide">http://www.rd.com/advice-and-know-how/stepbystep-instructions-and-pictures-of-small-workshop-storage-solutions/article114817-9.html#slide</a>



Lowboys, stools or crickets—whatever you call them, these stands are amazingly strong and versatile. There are four separate lengths for the tops and sides for four different-sized lowboys. You can make all four "boys" out of one sheet of 3/4-in. plywood. The progressively larger sizes allow them to nest for storage, making them perfect for a cramped shop. The 16-in. height is just right for large work that might not fit on normal sawhorses.

#### **A Nest of Crickets**

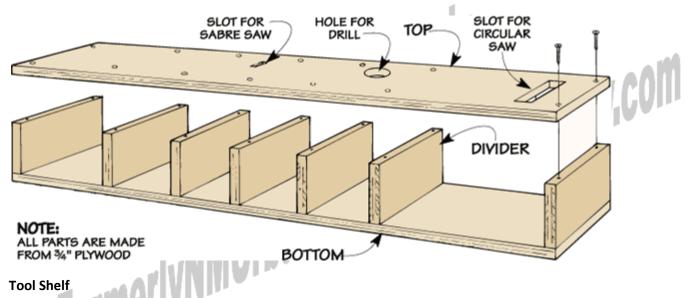


For working around the house, that extra height makes it easy to reach ceilings. If that's not reason enough, when your buddies come over to help you cogitate the finer points of your next project, there'll be plenty of seating.

## Corded Power Tool Shelf http://www.woodworkingtips.com/etips/etip010518sn.html



"Besides providing storage, this tool shelf solves another nagging problem as well — it keeps the power cords from getting tangled up like spaghetti." Smart, simple, addresses common power tool storage problems. What more could you ask for... it's a free plan!



Keeping power tools organized and within easy reach in my shop used to be a hassle. They were usually scattered around the shop or in a messy pile on my bench. To solve these problems, I built a handy shelf. Besides providing storage, this tool shelf solves another nagging problem as well — it keeps the power cords from getting tangled up like spaghetti. Each power cord fits in a separate compartment directly below the tool, as you can see in the photo at right.

These compartments are formed by a number of dividers that are sandwiched between a top and bottom, as shown in the drawing at right. The location of the dividers is determined by the amount of space each tool requires.

One last thing - not all tools will rest flat on the shelf. I modified the top as needed by cutting slots or drilling holes for some of the tools.

Organize Your Garage: Three Storage Projects http://www.rd.com/organize-your-garage-three-storage-

projects/article17886.html

Three easy-to-build garage storage and organizing projects: a rotating set of shelves that tuck into a corner, a folding perf-board cabinet, and a wall-hung pet-food dispenser.

#### **Materials and Cost**

Space shelves according to your storage needs, typically, 8 to 14 in. apart.

Cut all the pieces to size from the cutting diagram. Accurate cuts will result in tight, clean joints. Clamp a straightedge to the plywood to guide your circular saw when making the straight cuts. Use a carbide blade with at least 36 teeth to minimize splintering.

Mark the circle for the plywood bottom. Substitute a narrow strip of 1/4-in. thick wood for the compass arm if you don't have Peg-Board. Use the bottom as a template to mark the arcs on the quarter-circle shelves. Use a bucket to mark the arcs on the tops of the dividers.

Before assembling the pieces, lay out the shelf locations on the dividers. Make the shelves any height you want, but making them different heights in adjacent sections simplifies the screwing process.

Fasten the shelves to the two narrow dividers first, then set them upright and attach them to the wide center divider.

#### Tip

Mark the centerline of each shelf on the opposite side of the dividers to help position the screws.

### Drilling an Access Hole Is the Trick to Mounting the lazy Susan

If you're placing the base on a concrete floor, rest it on treated 1x2s to avoid rot. Level it with shims, if needed, for smooth rotation. Fasten the support shelf to the walls.

Anchor the base to the floor with masonry screws set in the exposed corners. Predrill the holes into the concrete with a 5/32-in. masonry bit or the size the screw package recommends.

The vinyl base provides an edge for the shelves. Buy the type that's not preglued. The 4-in. wide type is most common, but buy the 3-in.wide type if you can. Otherwise, use a sharp utility knife to trim an inch off the 4-in. one.

### **Folding Peg-Board Cabinet**

Peg-Board is a great way to organize tools. It displays them in clear view so they're easy to grab and, just as important, easy to put away. This cabinet has the hanging space of almost an entire 4 x 8 ft. sheet of Peg-Board, yet packs it into a compact 24 x 32 in. package. Two overlapping doors open, utilizing the front and back of each for tools. About 4 in. of space separate each panel, leaving a 2-in. depth for tools placed directly across from each other. If you place fat tools across from skinny ones, you can utilize the space even better.

This cabinet costs \$110 to build. The knot-free poplar boards drive up the price, but the straight, stable wood allows the doors to fit well, minimizes twisting, and keeps the cabinet square. In addition to the materials listed below, we purchased four eye screws and 2 ft. of small chain to hold the doors open. All the supplies are available at a home center or lumberyard.

You don't need any special tools to build this cabinet, but a pair of 1-ft. clamps are helpful when you're attaching the hinges.

## **Cut Accurately for Tight-Fitting Doors**

Cut the 4 x 8-ft. Peg-Board sheet lengthwise into two pieces, one 24 in. wide and the other 23 in. wide. Then cut the two pieces into 31-1/2-in. lengths. You must cut the Peg-Board panels accurately for the doors to fit evenly. Carefully measure and use a straightedge to guide your circular saw cuts. Some lumberyards will cut the sheets to size for you. Ask them to be precise.

Then assemble the Peg-Board panels, following the pattern shown in . You don't have to make fancy joints. Cut and screw on the 1x2 side spacers first, then measure and cut the 1x2 ends to fit between them. You'll have one 23 in. Peg-Board panel left over to hang on the wall for items that won't fit in the cabinet.

Substitute one half of the cleat for the top 1x2 on the back panel. Watch the angle. Orient it so it hooks onto the other half you screw to the wall.

**Tip:** Because you can't hang hooks in the cleat zone, fasten a shallow shelf there instead.

## Wrap The Panels To Form The Cabinet And Doors

The frames for the three panels are all slightly different. The back panel frame consists of three 1x6s and a1x8; the middle panel has four 1x2s; and the front has four 1x6s. These differences allow them to hinge together.

Measure the lengths and nail on the frames. Make sure to run a bead of carpenter's glue along the panel edges and at the corner joints to make them stronger.

Clamp the piano hinge to a firm surface, and cut it to length with a hacksaw (about 32-5/8 in.). Set the top, bottom, and middle screws to align the hinge, then fill in the remaining holes.

A hasp will hold the doors closed. We used a chest-style one that pulls the doors tight together and has a slot for a lock.

#### Tip

Punch a starter hole with a nail for the piano hinge screws to keep them centered.

## Hang It on the Wall

The mounting cleat is an easy way to hang this heavy cabinet. If you're mounting it over a workbench, hang it at least 16 in. above the work surface so you can open the doors without disturbing the project you're working on.

To hold the doors open when working, we installed eye hooks on the bottom of each door and on the wall. A short chain with small S-hooks holds the doors open.

### **Pet-Food Dispenser**

Build this bin and you can fill the dog dish with the flick of a finger and do away with that crumpled bag of dog food lying on the garage floor. It easily holds two 20-lb. bags of food and allows you to dispense it right into the dish. This bin even holds two types of food so the cat won't get jealous.

You can put it together in a half day with basic power and hand tools.

The materials cost \$90, and most of it can be bought from a home center or lumberyard. We used 3/4- in. clear aspen, because it's straight, soft and easy to work with. You can save about \$20 by building it out of No. 2 pine boards. If possible, buy the 18 x 24 in. acrylic sheet (\$10) already cut to size. To cut it without chipping it, you'll need a fine-tooth blade and a table saw.

"Blast gates" make handy food dispensers. Woodworkers use them for dust collection systems, so they're readily available at woodworking shops or by mail order (\$9). Get the metal ones—the plastic ones don't slide as well. (One source is Rockler, 800-279-4441, part No. 20864.)

These gates do have limitations. Medium- to large-sized food works best; they can jam with small stuff like birdseed. If the gate jams, quickly open and close it firmly.

Follow the photo series for step-by-step assembly instructions. The acrylic requires special handling. Leave extra room around it so it can expand and contract freely. Carefully nail the perimeter molding so the nails don't nick the acrylic and crack it.

Most types of hinges will work to secure the lid. We selected a short piano hinge(\$5). Cut it to fit with a hacksaw. The cabinet hangs on the wall on a cleat cut to 45 degrees.

**Tip**: The height of the cleat shown is perfect for a 6-ft. tall person to operate the gate. Lower or raise to fit your height.

From <u>The Family Handyman - September 2002</u>
Originally in Organize Your Garage: Three Storage Projects

Organize, cut the clutter and tools, clean up the workbench and garage floor. By Jeff Timm

http://www.rd.com/organize-your-garage-three-storage-projects/article17886.html



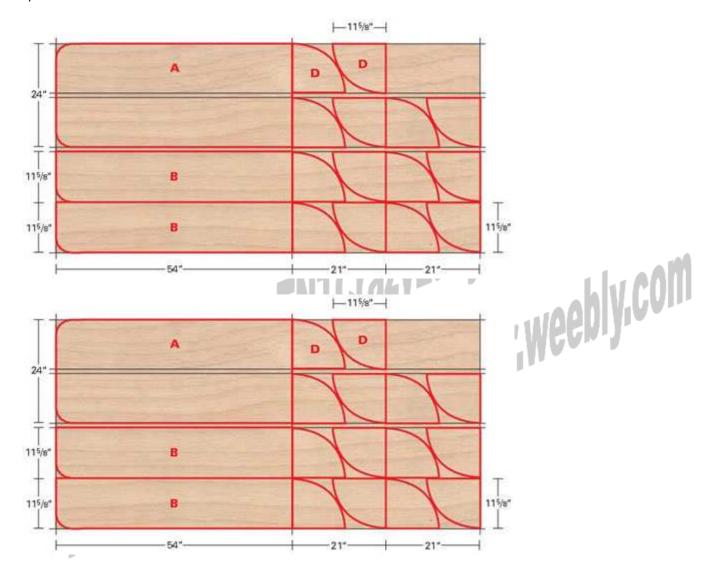


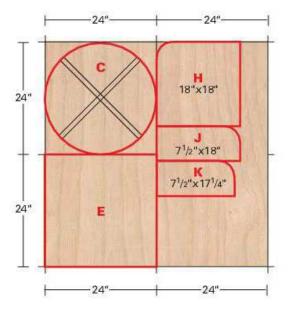
"This bin rotates on a pair of lazy Susan rings to maximize corner space and provide quick, easy access. A stationary upper shelf secured to the wall steadies the bin so it'll spin easily and won't tip over." I think this is one of those good ideas in pictures but kind of lame in practice... You tell me. I was won over by the idea though.

# Step-by-Step Pictures and Instructions To Build Rotating Corner Shelves <a href="http://www.rd.com/advice-and-know-">http://www.rd.com/advice-and-know-</a>

how/stepbystep-pictures-and-instructions-to-build-rotating-corner-shelves/article118304.html

# By Jeff Timm







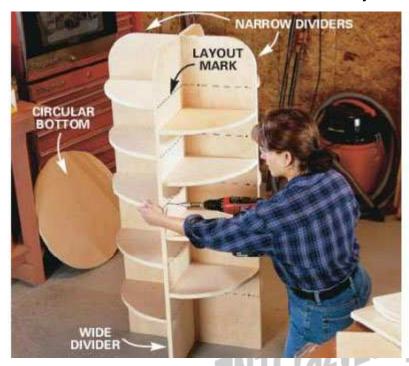
:weebly.com

1. Cut all the pieces with a circular saw and jigsaw, using the dimensions in Fig. A and our Cutting List. Mark the circle cut for the bottom with a 12-in. compass made from a scrap of Peg-Board. Cut it out with a jigsaw. Then trace the arcs of the shelves using the bottom as a template. (Note: The shelf sides are 11-5/8 in.)



2. Measure and mark the shelf locations on the dividers, spacing them anywhere from 10 to 14 in. apart. Align the shelves with these marks, then predrill and screw the shelves to the two narrow dividers with 2-in. drywall screws. A drill/driver bit speeds this process (\$10 at home centers).

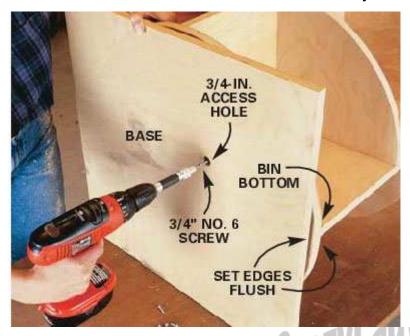




3. Connect the two shelf assemblies to the wide center divider with 2-in. drywall screws. Center and screw the circular bottom to the dividers.



4. Center the 12-in. lazy Susan on the base. Align the screw holes on the top and bottom rings. Locate the access hole in the lazy Susan and mark its location on the plywood with an awl or nail. Remove the lazy Susan and drill a 3/4-in. hole at the mark. Center the lazy Susan again, aligning the access hole to the hole drilled in the plywood, and fasten the bottom ring to the base with 3/4-in. No. 6 flat head screws.



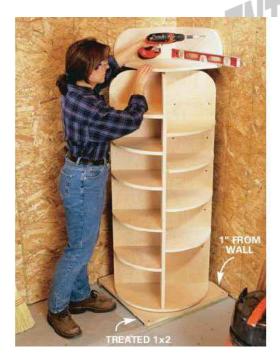
5. Center the base on the bin bottom and align a screw hole in the top ring of the lazy susan with the access hole. Fasten the top ring of the lazy Susan to the bin bottom with a 3/4-in. No. 6 flat head screw driven through the access hole. Turn the bin bottom to align the remaining screw holes in the top ring with the access hole, and fasten with additional screws.



**6.** Screw the bottom ring of the 3-in. lazy Susan to the dividers on top of the bin with 3/4-in. screws. Assemble the support shelf. Mark the bin rotation center on its bottom (about 13 in. from each wall) so the bin will clear the wall by about an inch when it rotates.



7. Center the 3-in. lazy susan at the rotation center on the support shelf. Screw the top ring of the lazy Susan to the support shelf with the 3/4-in. screws.



**8.** Set the bin on treated 1x2s with the base about 1 in. from the walls. Shim to level if needed. Level the support shelf and screw it to the wall studs with 2-1/2-in. screws. Spin the bin to test for smooth operation. If it runs rough, shim the base or slide it side to side slightly until it spins smoothly. Predrill and fasten the base to the floor with 2-1/2 in. masonry screws.

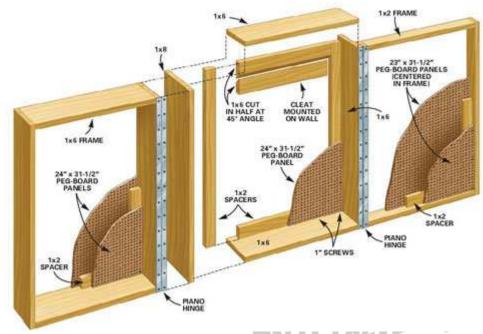


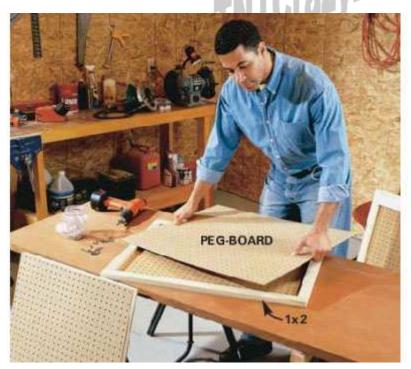


**9.** Squeeze a 3/8-in. bead of cove base adhesive along the shelf edges. Position the vinyl base with the lip to the top, curling out. Secure the ends with 1 in. tacks. Trim the ends flush with a utility knife.

Step-by-Step Pictures and Instructions To Build Folding Peg-Board Cabinet <a href="http://www.rd.com/advice-and-know-how/stepbystep-pictures-and-instructions-to-build-folding-pegboard-cabinet/article118305.html">http://www.rd.com/advice-and-know-how/stepbystep-pictures-and-instructions-to-build-folding-pegboard-cabinet/article118305.html</a>
By Jeff Timm

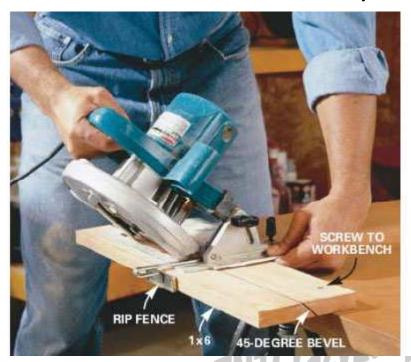
Organize, cut the clutter and tools, clean up the workbench and garage floor





:weebly.com

1. Cut the peg-board to the sizes shown on Fig. C with a circular saw guided by a straightedge. Cut the 1x2s to length and fasten the Peg-Board to them with 1-in. screws spaced every 8 in.



2. Cut the 1x6 mounting cleat in half at a 45-degree angle. For safety before cutting, screw it to a firm work surface with one edge overhanging 3 in. Use one half of the mounting cleat in place of the top 1x2 on the back Peg-Board panel.



3. Measure and cut the 1x6 frame boards to fit around each panel. Glue and nail the top and bottom first, then the sides, to the 1x2 spacers with 2-in. (6d) finish nails spaced every 8 in. Fasten the frame board corners with two nails and glue. Predrill all holes with a 3/32-in. drill bit to avoid splitting the wood.



**4.** Cut the piano hinge to length with a hacksaw and screw it on with the screws in the hinge package. Support and clamp the hinge sides in position to simplify hinge attachment. Close the doors and attach the hasp.



**5.** Position the other half of the mounting cleat about 40 in. Above the work surface and fasten it to the wall studs with four 3-in. screws. Hang the cabinet and drive two 3-in. screws through the bottom 1x 2 into the wall studs for extra strength.

## **Peg Board Storage Cabinet**

See the following for details: <a href="http://americanwoodworker.com/userdocs/images/content/ToolCabinet.pdf">http://americanwoodworker.com/userdocs/images/content/ToolCabinet.pdf</a> and <a href="http://www.diynetwork.com/how-to-build-a-pegboard-storage-cabinet/index.html">http://www.diynetwork.com/how-to-build-a-pegboard-storage-cabinet/index.html</a>

### **Materials**

- 1x4 board
- pegboard
- galvanized screws
- block of wood
- handles
- piano hinge
- screws

#### **Tools**

- safety glasses
- drill
- framing square



Step 1: Cut the Pegboard and 1x4s

Determine the desired size of the cabinet, then transfer the dimensions to pegboard and cut it — or have it cut

# Step 2: Form and Square the Frames

Form the frames, joining the corners with butt joints — that is, joints formed by butting two pieces together and securing them, thus eliminating the need for mitering. Drill pilot holes in each corner and insert galvanized screws. **Note:** It's usually a good idea to drill pilot holes anytime you're working near the edge of the wood (Image 1). This eliminates the need to worry about inserting the screw too near the edge and splitting the wood. Square up the frame throughout this process, either with a framing square or by this handy shortcut: make sure the pegboard is cut perfectly square, then use it to line up the frame (Image 2). Doing this makes the job of squaring much faster and more accurate.



**Step 3: Attach the Handles** 

If you plan to add a handle in the lower corner of each door, first attach a small block of wood to the inside of the door at that point. This will provide a surface into which you can drive the screw to hold the handle.



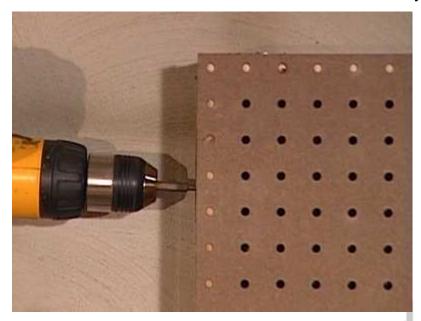
**Step 4: Attach the Hinges** 

Fit the piano hinges on the doors, then predrill holes and attach the hinges to the doors with screws (about one in every other hole should work).



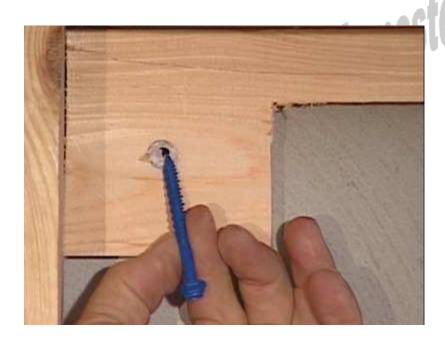
**Step 5: Attach the Doors** 

Attach the doors to the cabinet frame. You'll need an assistant for this step.



**Step 6: Complete the Base** 

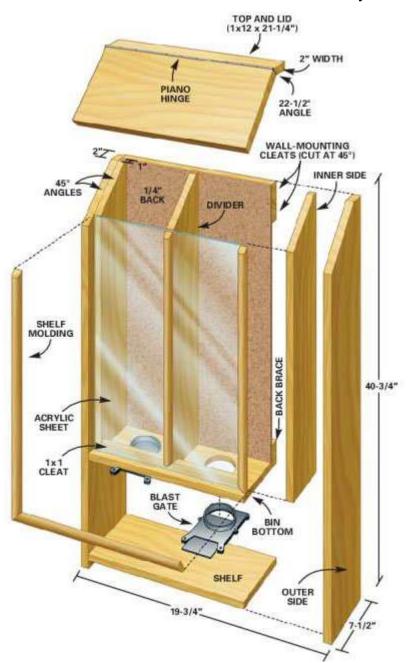
Attach the base to the wall, using a hammer drill and masonry screws (Image 1) if necessary (if attaching the base to wall studs, use wood screws). Attach the pegboard back to the base (Image 2).





ww.rd.com/advice-and-know-i Step-by-Step Pictures and Instructions To Build a Pet Food Dispense <a href="http://www.rd.com/advice-and-know-how/stepbystep-">http://www.rd.com/advice-and-know-how/stepbystep-</a>  $\underline{pictures-and-instructions-to-build-a-pet-food-dispense/article 118306.html$ 

By Jeff Timm



:weebly.com



Set your saw to an angle and rip the lid (22-1/2 degrees) and mounting cleat (45 degrees). Clamp or screw the boards to your workbench and use a straight guide for these cuts. Cut the other parts to length (see cutting list and fig. D) using a speed square as a guide to keep the cuts square.



2. Lay out the bays on the bin bottom using Fig. D as a guide. Find the center of each bay and draw the circular cutout for the blast gates with a compass. Drill a 5/8-in. starter hole and cut out the openings with a jigsaw.



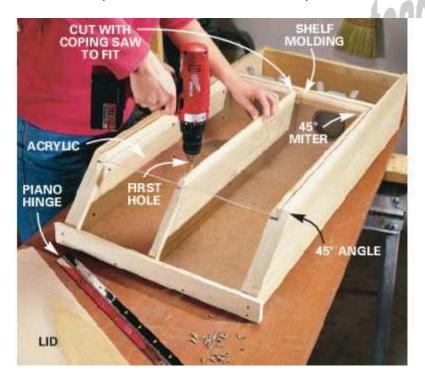
3. Mount the blast gates in the openings. Replace the bolts that hold the two sides of the blast gate together with four 1-in. No. 6 wood screws. Don't overtighten or you'll pinch the gate closed. (Note: We also drilled a 3/8-in. hole to recess a little nub and bolt in the top of our blast gate.)



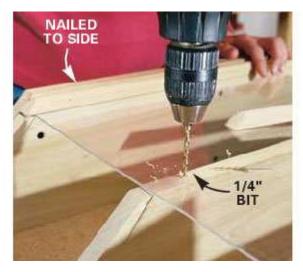
**4.** Glue and screw the two-piece sides together (Fig. D). Use 1-1/4 in. screws and predrill with a 1/8-in. bit to avoid splitting the wood.



**5.** Predrill and screw the center divider to the bin bottom with 2-1/4 in. Trim head screws. Then add the sides, bottom, and top. Next attach the back and the top half of the cleat with 1-1/4 in. screws.



**6.** Set acrylic in place, leaving 1/8-in. gap on all sides for expansion. Cut and fit the moldings (Fig. D). Nail the sides and bottom moldings to the bin with 3d finish nails, sandwiching the acrylic in place. Set the center molding and predrill 1/16-in. nail holes through both the molding and acrylic.



7. Remove the center molding and enlarge the hole in the acrylic with a 1/4-in. bit to provide room for expansion. Press the drill gently so the bit doesn't grab and crack the acrylic. Replace the molding and nail it on. Cut the piano hinge to length and screw it to the top.

MOUNTING
CLEAT



**8.** Level and screw the other half of the mounting cleat to the wall with four 2-1/2 in. screws driven into the wall studs. Hang the cabinet on the interlocking mounting cleats.

## 2 Rolling Cabinet/Shop Cart Plans

Rolling shop cabinet http://www.canadianhomeworkshop.com/index.php?ci\_id=2670&la\_id=1

"At its core, this project is a simple plywood cabinet. I chose contrasting wood to add visual appeal. Walnut drawer fronts and edging for the top provide a nice dark contrast against the pale maple and birch of the rest of the cabinet. I also made my own maple drawer pulls to add a little flair."

# **Rolling shop cabinet**

By Art Mulder Photography by Roger Yip, Illustration by Len Churchill



Built to house a scrollsaw, this mobile cabinet was designed with comfort and storage in mind

I suspect that all woodworkers love getting new tools. Opening the box, putting the parts together, trying out the tool-maybe even reading the owner's manual. But for those who work in a small shop, that excitement of getting a new tool is tempered with the issue of where to put it. A new drill can usually be squeezed into a drawer or hung on the wall, but larger tools, such as a scrollsaw, require more room. That's where the design challenge lies for this cabinet. I made this cabinet short enough to fit under other shop furniture, such as a bench or the wing of a tablesaw. I also thought about how a lot of people I've talked to say they like to sit down when using a scrollsaw. With this cabinet's height, you can pull up a chair to the saw. The unit has locking casters, which means you can roll it out from storage, lock the wheels when in use, then roll it away when your job is done.

At its core, this project is a simple plywood cabinet. I chose contrasting wood to add visual appeal. Walnut drawer fronts and edging for the top provide a nice dark contrast against the pale maple and birch of the rest of the cabinet. I also made my own maple drawer pulls to add a little flair.

Before you begin, check the materials list and make any adjustments to the dimensions to suit your particular tool and your shop. I used a lot of pocket-hole joinery in building this project, but biscuits, screws or nails would also work well.

## **Prepare the Carcass**

Begin bringing your stock to size by cutting out the pieces for the sides, bottom and back of the cabinet. Get started on the joinery by drilling pocket holes. They should be positioned on the inside faces of these pieces, so they are hidden when the cabinet is complete. Three or four pocket-hole screws along each connection, together with some glue, should provide plenty of strength to the cabinet joints.

Drill pocket holes along the front and back, as well as the top of the two side pieces. The cabinet is fairly short, so I recommend leaving the top off until later to give you access to the inside for mounting the drawers. However, you'll want to make sure you drill pocket holes in the top at this stage for mounting the top later.

Next, drill pocket holes along all four edges of the back. The bottom section requires pocket holes along both sides, as well as along the front. Fasten the bottom to the two sides, then fit the back between the sides, tightening the screws securely. Glue squeeze-out isn't a concern; these joints will be hidden.

Cut the top to size now, and rip enough walnut to 1 1/2" wide for the edging. Again, drilling pocket holes in the underside of the top helps to align and attach the edging to the top. A rolling cabinet is liable to bump into things on occasion, so it's a good idea to round off the sharp corners of the top. Draw a small-radius curve and cut off the corners with a jigsaw or bandsaw. Chamfer the edges with a hand plane or run them over a roundover bit chucked into a tablemounted router. With this done, set the top aside until later.

### Frame It

Before cutting the face-frame members to length, check the dimensions of the actual cabinet. Drill two pocket holes in

the end of each rail and fasten the pieces together. Leave a four-inch gap for the top drawer and 7 3/4" for the bottom one. The pocket holes you made in the cabinet earlier should now be used to attach the frame to the front of the carcass.

I built my drawers with Baltic birch plywood. We tend to think of this material as being a half-inch thick, but its actual thickness is 12mm. Keep this in mind as you check measurements and set up the dado blade in the next steps.

Next, cut the pieces for the drawers. The drawer slides require a half-inch of clearance on each side of the drawer box. This design calls for the front and back of the drawer boxes to fit into rabbets in the sides. Therefore, the front and back pieces of the drawer box need to be  $1 \frac{1}{2}$ " shorter than the width of the drawer opening in the face frame.

Get your drawer pieces ready to assemble by setting up a dado blade in your tablesaw. Set the width to match the thickness of the drawer plywood and set the blade to a depth of half that. Cut a rabbet around the bottom edge of all four sides. Next, cut a rabbet along the front and back edges of the side pieces. Apply a bead of glue in those rabbets and nail the front and back to the sides of the drawers. Then, apply a bead of glue in the rabbet of the bottom and nail it to the bottom of the drawer. These are simple drawers, just one step up from basic butt-joined boxes. The rabbets provide more glue surface and help square up the drawer.

The Euro-style slides that I chose have a 100-lb. (45.5-kg) rating, which is plenty for this application. In addition, they have an L-shape to them-they partially support the bottom of the drawer, which lends strength to this simple drawer construction method.

Before you install the drawers, screw 3/4"-thick support spacers to the inside of the cabinet, on both sides of each drawer opening. Use scrap plywood, as the actual width of these spacers isn't crucial. The only requirement is that they must be flush with the inside of the face frame, allowing you to attach the drawer slides. Follow the instructions that come with the drawer slides.

Cut the drawer faces from 3/4" walnut. They should be 1/2" wider and taller than the drawer openings, to provide a 1/4" overlap on all four sides.

#### **Raised Panels**

If you have a panel-raising bit for your router, you can use it in a router table to turn your drawer fronts into raised panels. Raised panels can also be made on the tablesaw with the following simple jig. Cut a piece of plywood four to five inches wide x 14" to 18" long. This is the base and will ride along the saw fence. Cut another piece about six inches tall x 12" to 14" long. This will be the face to which the drawer front is clamped. Finally, cut two vertical supports about three inches wide x six inches tall, but cut one of the tall sides at an 80° angle. Fasten the vertical supports to the base and the face to the vertical supports. The face board should now lean back at a 10° angle. Leave the tablesaw blade at the standard 90° as the jig features the needed built-in angle.

Clamp the board to be cut to the face of the sled, set the fence width, raise the blade to about 1 1/2" and make the cut. In order to leave a ridge, which defines the edge of the raised panel, the left side of the blade should just clear the board, while the right side should remain embedded. Test cuts are crucial as you set up for this cut. Hold the sled tight against the fence as you push your stock through the blade.

You may find that the end grain burns a little bit with this jig. This is easily remedied. After making the first cuts on all four sides of the panel, loosen the fence and tap it a smidgen closer to the blade, about 1/32". Run the end grain parts of the panel through the saw again. Just a tiny amount of wood will be removed, and the burning will be almost totally eliminated-anything left can be sanded out.

### **Something to Hold Onto**

I quite like stainless-steel bar handles as drawer pulls. But because they're pricey, I designed pulls from shop scraps and a section of maple dowel. They have the look of the large bar handles, but they cost less and suit this project.

Cut two pieces of half-inch dowel to length. Next, cut four end blocks from maple. Carefully set up your drillpress and drill 1/2"-diameter holes using a Forstner bit, about 3/8" deep into each of the end blocks. Use a fence and stop block on a drillpress table to ensure that all the holes are drilled in the exact same location on each block. Place a few drops of glue in the holes, push the dowels into place and set them aside to dry.

Attach the drawer faces and pulls to the drawer boxes using countersunk screws. You can also position the cabinet top in place now and fasten it down.

#### On a Roll

The final step in this project's construction is to mount casters on the bottom of the cabinet. Cut some mounting blocks, roughly five inches square, from scrap walnut. Without the blocks, the weight of the cabinet would be carried completely by the bottom of the cabinet. This would place a strain on the joint between the bottom and the sides. The mounting blocks sit under the sides, and help bear the weight. Choose walnut to balance the project visually-so there is walnut trim both at the top and the bottom. Attach one pad at each corner of the cabinet, set in about a 1/4" to create a shadow line. Fasten the casters to the blocks.

When finishing the piece, avoid aggressive sanding. The face veneer on modern plywoods is thin. For best results, I usually skip straight to fresh 150-grit sandpaper, followed by 220-grit. Vacuum off the dust and wipe on a coat of boiled linseed oil. Wait five minutes and wipe off any excess. After 12 to 24 hours, apply a second coat of oil.

Once the project is dry, buff it with a soft cloth and apply a coat of paste wax to complete the job.

Shop Cart/Table Saw Extension <a href="http://www.newwoodworker.com/rolcabsawext.html">http://www.newwoodworker.com/rolcabsawext.html</a>



This rolling cabinet doubles as an extension table for my Jet saw. It works great, plus adds

needed storage space to the shop

## Shop Cart/Table Saw Extension Text and Photos by Tom Hintz

Whenever we can build shop equipment that serves more than one purpose, we gain space, efficiency and probably save a few dollars as well. I had been contemplating buying or building a table saw extension wing for some time and finally decided on making a simple cabinet on wheels. This cart is the result.

The table surface is 27-inches wide and 31 1/2-inches long. I built the top from a sheet of particleboard, covered with a high-pressure laminate, applied with contact cement.

A 1 ½-inch-wide, ¾-inch-thick pine band was added to the edge of the top along the sides and front (away from the table saw) to increase the surface area and provide a place for clamps when needed. The band was secured with biscuits, glue, screws and mitered at the corners.

The cabinet itself is 24 1/2-inches wide and 30-inches long, built from 9/16-inch-thick plywood. Panels are joined with ¼-inch-deep dados, glue and screws.

The locations of the horizontal and vertical panels were designed around the motor on my Jet contractor-style saw. I left one inch to spare below and behind but you can alter that as you see fit. Clearance above the motor is determined by the height of the table saw surface.

With the saw tilted to 45-degrees, the motor just touched the side panel. I cut large openings on both sides of the motor chamber to assure airflow and educe sawdust buildup.

I discovered that with the saw tilted to 45-degrees, the motor touched the outside wall of the cabinet. That problem was solved when I cut large holes on either side of the motor compartment to insure unrestricted airflow. I seldom run my saw for long periods, but wanted to insure adequate airflow to minimize any chance of overheating.

Another consideration is sawdust buildup in the air surrounding the motor. If the motor is enclosed, the amount of sawdust suspended in the air surrounding it increases. Though admittedly remote, there is the possibility of ignition if the dust-to-air ratio gets too high. Cutting the ventilation holes works to minimize both problems.

To get the proper height of the side panels I installed the three ½-inch-tall casters on the floor panel (fixed casters on the saw end, locking swivel casters on the other) the temporarily assembled the floor and sides. I had cut the side panels approximately two-inches long purposely to allow matching them to the table saw surface. I put the cabinet top on the floor behind the saw, and then set the partially assembled cabinet in position. With the cabinet properly located against the saw, it's wheels resting on the top, placing a long straight edge across the table saw surface, extending out against the cabinet sides let's you draw a perfect cut line at which to trim the side panels. When I made this cut I made sure to "take" the line so the cabinets surface wound up just slightly below that of the table saw. This may be the long way around to find this dimension, but it worked perfect.



Grooves were routed in the top for clearance of the miter guide bars. I also rounded over all

the edges of the top surface.

With the sides cut to size, the cabinet carcass was permanently assembled and a two-inch-wide, flush-mounted face frame was added inside the upper edges to both stabilize the cabinet sides and provide material through which to secure the top with screws.

Two drawers, 20-inches-wide, 15-inches long and six %-inches deep were built. These drawers will carry considerable weight so I used %-inch-thick pine and cut through dovetails on my Leigh jig on the front corners. The rear of each drawer was finished with another %-inch-thick piece of pine secured in a dado. The drawer bottoms were made from %-inch-thick plywood, set into 3/8-inch-deep dados.

Full extension, ball bearing slides were installed on both drawers and after checking fit and operation, 9/16-inch plywood drawer fronts were attached with brads and screws.



The cabinet/extension turned out great and already has proven to be very useful in the shop,

for very little money.

The drawers were the only source of "trouble" in this project. In the past either my cabinet carcasses or the drawers (or both) were sufficiently out-of-square to create enough drag to keep the drawers from moving in or out unexpectedly. They worked, but had a little resistance. This time my construction was better. Now when I reposition the cart, if the drawers are facing forward, they don't always stop when the cart does. Occasionally after the cart stops, the drawers continue on to full extension, something my shins discovered, twice so far.

To finish the top I routed a bevel on all four side edges. Grooves were routed in the top to accept miter guide bars as they protrude through the rear of the saw table slots.

In use, this cabinet/saw table extension works great. The size seems good for my shop and adds a substantial level of stability to large work pieces as they slide off the back of the saw table.

Keep I mind that all but the overall height of this cabinet can be whatever you need to fit your shop and situation. Think about your needs, the layout of your shop and how this cabinet will affect your works pace. In my shop, this cabinet stays out of the way when not needed but always seems handy when I have work for it.

 $\textbf{Tool Cabinet/Shelves (PDF)} \ \ \text{http://www.americanwoodworker.com/userdocs/images/content/ToolCabinet.pdf}$ 



"Today's woodworker needs a different kind of storage space, geared toward power tools. Our tool chest is just the ticket."

Folding Peg-Board Cabinet http://www.diynetwork.com/how-to/how-to-build-a-pegboard-storage-cabinet/index.html





Here's how to make a simple pegboard cabinet that can greatly increase your storage area.

### **Materials**

- 1x4 board
- pegboard
- galvanized screws
- block of wood
- handles
- piano hinge
- screws

### **Tools**

- safety glasses
- drill
- framing square

## In this Project you will:

**Step 1: Cut the Pegboard and 1x4s** http://www.diynetwork.com/how-to/how-to-build-a-pegboard-storage-cabinet/index.html#step1

Determine the desired size of the cabinet, then transfer the dimensions to pegboard and cut it — or have it cut

# **Step 2: Form and Square the Frames**

Form the frames, joining the corners with butt joints — that is, joints formed by butting two pieces together and securing them, thus eliminating the need for mitering. Drill pilot holes in each corner and insert galvanized screws. **Note:** It's usually a good idea to drill pilot holes anytime you're working near the edge of the wood (Image 1). This eliminates the need to worry about inserting the screw too near the edge and splitting the wood. Square up the frame throughout this process, either with a framing square or by this handy shortcut: make sure the pegboard is cut perfectly square, then use it to line up the frame (Image 2). Doing this makes the job of squaring much faster and more accurate.





**Step 3: Attach the Handles** 

If you plan to add a handle in the lower corner of each door, first attach a small block of wood to the inside of the door at that point. This will provide a surface into which you can drive the screw to hold the handle.



**Step 4: Attach the Hinges** 

Fit the piano hinges on the doors, then predrill holes and attach the hinges to the doors with screws (about one in every other hole should work).



**Step 5: Attach the Doors** 

Attach the doors to the cabinet frame. You'll need an assistant for this step.

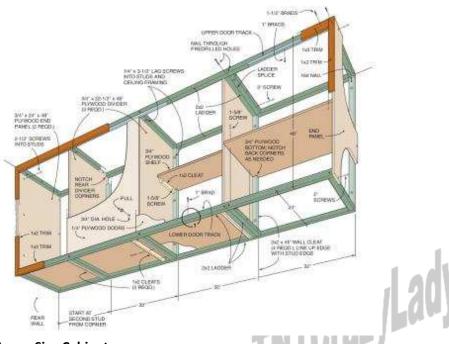


**Step 6: Complete the Base** 

Attach the base to the wall, using a hammer drill and masonry screws (Image 1) if necessary (if attaching the base to wall studs, use wood screws). Attach the pegboard back to the base (Image 2).



**Super-Size Cabinets** http://www.rd.com/advice-and-know-how/17772/article17772.html



**Super-Size Cabinets** 

With this 2x2 frame and panel system, you can add 80-plus cubic feet of storage in an afternoon By Travis Larson

Everyone needs "deep" storage, that is, a place for camping gear, holiday decorations and seasonal toys and clothes. Not to mention all the other stuff you want to tuck away for a few months and keep clean. This cabinet system fits the bill. It's spacious, inexpensive and easy to build. You can also easily customize its size to suit just about any open wall space and your storage needs. We tucked ours up against the ceiling to fill the little-used space over the car hoods.

The cabinet is divided into 32-in. wide compartments because they hang from every other garage stud. Sliding cabinet doors keep out the dust while allowing wide open, instant access to your stuff.

In this article, we'll show you how to build this project in four simple steps. Uncomplicated 2x2 and plywood construction makes assembly a snap. In fact, two of us built the cabinets you see in this article in about three hours. If you have a circular saw, a jigsaw, a screw gun and moxie, you can build these cabinets in an afternoon.



## Planning your cabinets

r.weehly.co Like most overhead wall cabinets, these are hung from wall studs. They're built in place using the ceiling and wall surfaces for the backs and top. This simplifies construction and saves on materials. If you don't have a finished wall behind the cabinets, begin the project by screwing 1/2-in. plywood or drywall over the wall studs. If your ceiling is open, add drywall or plywood there as well to keep out dust.

Most garage walls have studs spaced every 16 in., so we sized individual bays to fit over two stud spaces, or 32 in. If you have studs that are spaced every 24 in., make the compartments that wide.

We sized these cabinets to use 4x8 plywood sheets efficiently. When planning your cabinet dimensions, consider:

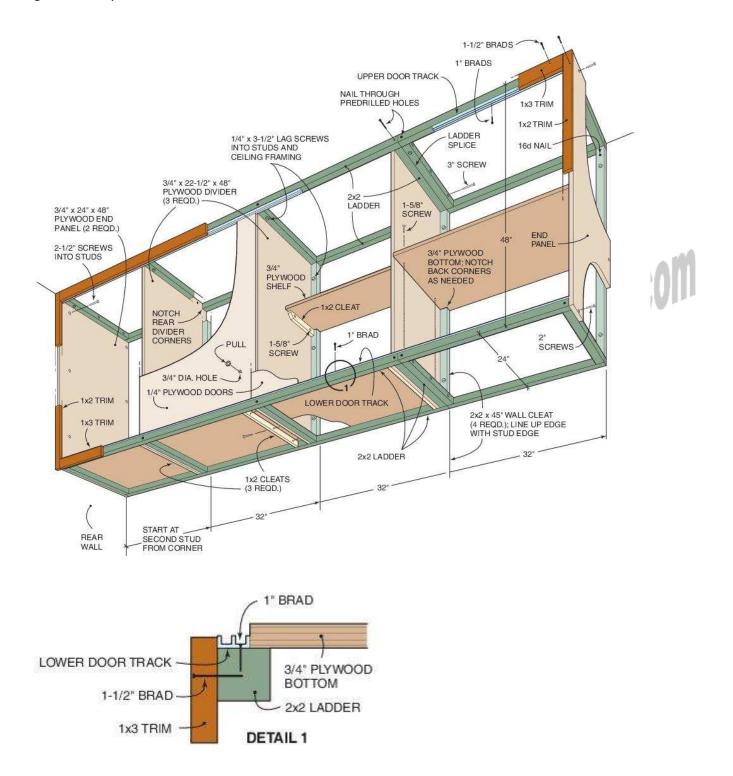
Height: In most garages, a 4-ft. cabinet against the ceiling leaves about 5 ft. between cabinet bottoms and the garage floor. If you park long vehicles in the garage or have a shallow garage, you may need to use the space under the cabinets for the fronts of vehicles. If so, measure the height of the hood to make sure you'll have clearance when choosing cabinet heights. Also consider the heights of items you may want to store beneath the cabinets. Motorcycles, bikes, storage cabinets and wheeled tools are ideal candidates for that space. Two other heights that efficiently use plywood are 32 in. (six panels per sheet) and 24 in. (eight panels per sheet). Keep in mind that protruding cabinets invite head bumps. So make sure walking patterns don't pass too close to corners.

Depth: If you need to walk in front of the cabinets to access car doors, reduce the cabinet depth. Park your car in the garage to determine the maximum depth that still leaves plenty of room for foot traffic, and size accordingly. Depths of 16 or 12 in. will allow for six or eight panels per sheet respectively with little waste.

Width: The cabinets don't have to start against a wall as we show, but they do have to begin and end on a stud. So locate and mark all studs before deciding on how many compartments fit on the wall. There's a good chance you'll have an odd 16-in.wide compartment at one end. You can use those compartments for open shelving or build oversized

sliding doors to cover a standard opening plus the oddball. Be sure to consider access to service doors near the cabinets. Too close and it might be difficult to negotiate around cars to get into the house or back yard.

Fig. A Assembly



Lay out the cabinet footprint on the floor with masking tape and park the cars in the garage before you start building the cabinets. Walk around the garage and test access to the cars and service doors to make sure your cabinet layout is garage user—friendly.

### Selecting the materials

Just about any type of sheet material will work for your cabinets. For a handsome, natural wood look, we used 3/4-in. birch plywood (\$32 per sheet) for the end and divider panels and 1/4-in. birch plywood (\$25 per sheet) for the sliding doors. You can reduce the cost by using MDF (medium-density fiberboard, \$15 per sheet) for painted cabinets or even construction-grade plywood (\$15 per sheet) for down-and-dirty utility cabinets.

The sliding doors glide on plastic track (see Buyer's Guide, p. 54) that'll handle any 1/4-in. thick material. You can even choose 1/4-in. hardboard or Peg-Board for ventilated cabinets. If you select plywood, plan to seal all the surfaces and edges of the doors to prevent warping.

### Four-step cabinet building

These cabinets are incredibly easy and quick to build, because you only have to snap lines and freehand most of the cuts with a circular saw or jigsaw (Photo 1).

### Attach the end panels and mount the wall cleats

Begin the cabinet assembly by attaching the first end panel to the end wall (Photo 2). To make it easier, start screws in the panel and then hold it against the wall, especially if you're short on help. Angle the screws slightly at the corner to hit the corner stud and add more screws into the first stud near the corner. Attach the end panel at the opposite end by securing it to a 2x2 cleat that's nailed and then lag-screwed to the stud. Cut all the cleats 3 in. shorter than the end panels to leave a 1-1/2 in. space at the top and bottom of the panels for the ladders (Photo 4). It's easiest to nail the cleats to the wall first and then install the lag screws in the center of the studs. Remember that they support nearly all of the weight of the cabinet and contents.

### **Build and install the ladders**

You'll be nailing the ladder parts together before holding them up and fastening them to the end panels and wall. It's easy to split 2x2s, so predrill ends before nailing. Don't assume the ladders will be the same size, because walls and end panels can be out of plumb. Measure and assemble the top and bottom ladders independently rather than making carbon copies. Make sure the rung edges line up with the stud edges so the framing will be aligned for the panels. Since 2x2s are generally only sold in 8-ft. lengths, cut the rails to break at a wall cleat, and splice the sections together by doubling the 2x2 rungs at that point. They'll be wobbly, but as soon as they're fastened, they'll be plenty sturdy.

Sight along the outside of the bottom ladder or string lines along the outside edge to make sure the ladder is straight before fastening the divider panel bottom (Photo 11). Otherwise the sliding doors might slip out of the tracks or bind.

### Install the dividers, bottoms and shelves

You'll need to cut 1-1/2 in. corner notches at the top and bottom of the back of the divider panels to clear the ladder framing (Photos 9 and 10). Cut them a little on the big side so you won't have to struggle with wedging the divider panels into place. Place one on each side of the cleats. You'll have to add another cleat on the bottom of the plywood side to support the cabinet bottom (Photo 13). Then you're ready to install the sliding door track (Photo 12). Cut the

cabinet bottoms to fit against the door track and notch the corners wherever necessary to clear framing. Decide on shelving depths and heights, then cut 1x2 cleats to match the depths.

### Install the sliding doors and finish

Cut the 1/4-in. door panels to width so they overlap the end and/or divider panels on both sides of the opening. Cut the panels to length so they clear the bottom track by about 1/8 in. when you slip them into the top track first. If you're using plywood for the doors, cut them from the backside to avoid splintering on the "show side."

For a finish detail, we covered the exposed end panel edges and the exposed 2x2 ladder edges with maple (Photo 17). Use any wood type you'd like, but select 1x3s for the ladder trim and 1x2s for the end panels.

Finish the cabinets with latex paint or polyurethane. If you're using plywood for the door panels, coat the backside first, then flip them over and immediately seal the front side to prevent the doors from warping.

### **Buyer's Guide**

1/4-in. x 6-ft. track. Catalog No. KV241760, Woodworker's Hardware, (800) 383-0130, www.wwhardware.com. ler, weeply.com

### **Shopping List**

### Lumber:

For every four 32-in. bays, you'll need:

End and divider panels, bottoms: Two 4x8 sheets of 3/4-in. plywood Shelving: One 4x8 sheet of 3/4-in. plywood

Sliding door panels: Two 4x8 sheets of 1/4-in. plywood

Framing: Eight 8-ft. 2x2s

Shelving cleats: approx. 4 ft. of 1x2 per 24-in. shelf

### Hardware:

Lag screws: Sixteen 1/4 x 3-1/2 in.

Framing fasteners: 1 lb. of 16d nails

Panel fasteners: 1 lb. of 2-in. screws

Shelving cleats and cabinet bottom fasteners: 1 lb. of 1-5/8 in. screws

Track and trim fasteners: Small box of 1-in. brads

Door track: One 4-ft., one 8-ft. (see Buyer's Guide).

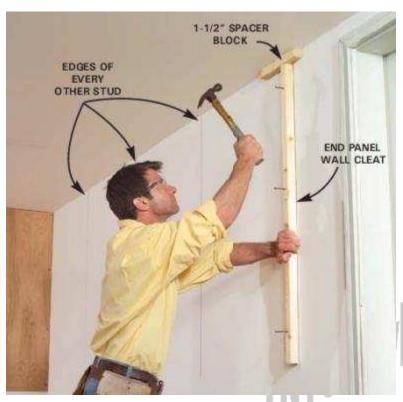
Finger pulls: Four 3/4-in. diameter



1 Rip one 8-ft. long, 24-in. wide length of 3/4-in. plywood for the end panels and 22-1/2 in. widths for each divider panel. Cut the panels to 4-ft. lengths.



**2** Press one end panel against the ceiling and the rear wall and screw it to the corner and first wall stud. Angle the back screws slightly to catch the corner stud.



**3** Locate the studs. Mark one edge with a 4-ft. level, then nail the end panel wall cleat into the last stud, spacing it 1-1/2 in. from the ceiling.



4 Press the end panel against the ceiling and wall, then screw it to the outside edge of the wall cleat with 2-in. screws.

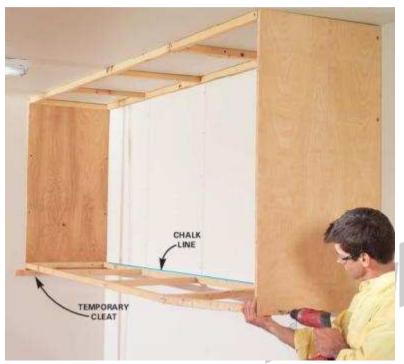


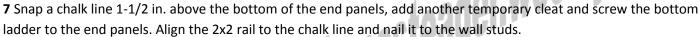
Lady steader, weeply, com

**5** Cut the ladder rails to fit between the end panels. Then carefully lay out the 2x2 rung locations using the wall studs as a guide for spacing. Nail the ladders together. Screw splices together with 3-in. screws.



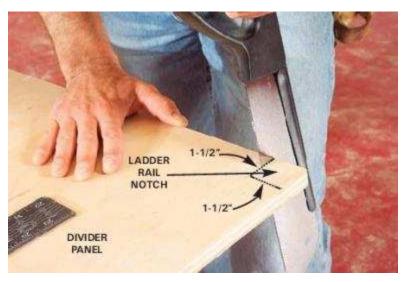
Tack a temporary cleat 1-3/4 in. below the ceiling, rest the top ladder on it, and lift it into place. Screw it to the end panels and then fasten it to any available ceiling framing and to the wall with lag screws.







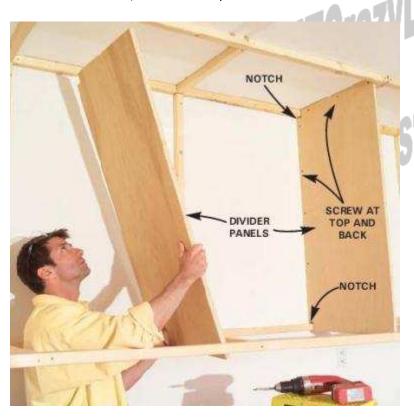
Nail the divider wall cleats to the studs, then predrill three evenly spaced 3/16-in. pilot holes and bolt the cleats to the studs with 3-1/2 in. lag screws.



9 Cut notches in the divider panels to clear the back upper and lower ladder rails. (The divider panels stop just short of the front ladder rails; see Photo 10.)

NOTCH

NOTCH



10 Lift the divider panels into position. Using 2-in. screws, attach them to the wall cleats and top ladder rungs only.



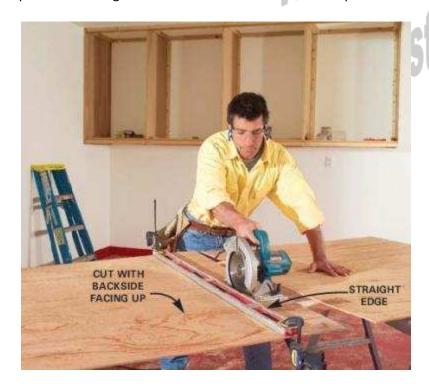
11 String a line along the bottom corner of the front rail. Straighten the rail to the line, clamp it, then screw the panels to the rungs.



**12** Cut the tracks to length, then tack the bottom track to the bottom rail with 1-in. brads. Punch the brads to the bottom of the grooves with a nail set. Spread polyurethane glue on the top track and tack it into place.



13 Cut 1x2 cleats and screw them to the bottom of the divider panels to support the bottom panels. Cut the bottom panels to butt against the door track. Screw them into place.

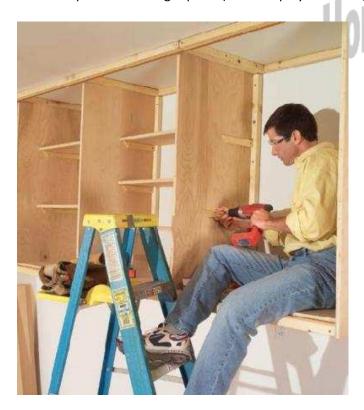


**14** Measure the distance from the top of the bottom track to the inside of the top track and subtract 1/8 in. to determine door height. Cut the door from 1/4-in. plywood.





Test-fit all the doors and slide them to the closed position. Mark the best finger pull placement. Then drill 3/4-in. holes and press in the finger pulls. (A dab of polyurethane glue will keep them from popping out.)



**16** Lay out shelf sizes and spacing as desired, then cut and screw 1x2 cleats to the inside of the cabinets and cut the 3/4-in. shelves to fit.



17 Cut 1x2 end panel trim to extend about 3/4 in. below the end panel. Nail into place. Cut and nail 1x3 trim for the top and bottom rails.

Art Direction • MARCIA WRIGHT ROEPKE
Photography • BILL ZUEHLKE
Technical Illustration • EUGENE THOMPSON
From The Family Handyman - September 2003

Building a basement storage solution <a href="http://www.woodgears.ca/storage/basement.html">http://www.woodgears.ca/storage/basement.html</a>

\*\* I have made this with some help and instead of making the boxes, I use Rubermaid type tubs on the rack.



"On going through the junk in my basement, I got annoyed at all the cardboard boxes in bad shape holding various parts and junk, and I figured I should build some wooden boxes to hold the stuff instead. Of course, if I build those boxes, I might as well make something to hold the boxes in an orderly fashion too. And hence this project."



TNTCrazyLady thanHomesteader, weekly, com

On going through the junk in my basement, I got annoyed at all the cardboard boxes in bad shape holding various parts and junk, and I figured I should build some wooden boxes to hold the stuff instead. Of course, if I build those boxes, I might as well make something to hold the boxes in an orderly fashion too. And hence this project.

I started by buying some shelving boards, 12" wide by 8' long from the Home Depot. These are unplaned rough lumber, but reasonably cheap. As long as you have your own thickness planer, they are a good deal.



I made eight wooden boxes, each 52 by 35 cm, and 20 cm deep. For the sides, I used the boards, for the bottoms, I used various pieces of thin plywood I already had. The corners of the boxes I joined with a rabbet cut in the side, and the front just butting into the rabbet. This joint is very easy to assemble, because the board just goes right in the corner cut into the other board. No fingers to mesh, and no alignment issues. Of course, its not as strong as a dovetail joint or a box 140mesteader Week joint (http://www.sentex.net/~mwandel/workshop/fingerjoint.html), but I don't want to spend that kind of time.



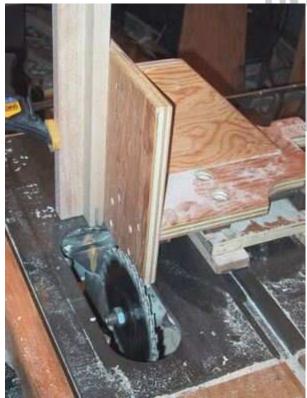
To add to the strength of the corners, I like to reinforce the corners (http://www.woodgears.ca/box\_joint\_alt/index.html ) by cutting a slot into them at 45 degrees, and then gluing a wood triangle into the slot. I do this after the main box is assembled, so there is no alignment issues. I stack three saw blades (http://www.sentex.net/~mwandel/workshop/dado.html ) to do this. After gluing the corner pieces in, I flush trim them.

Building a rack to hold the boxes



Drawer cradle

After building the eight boxes, I built eight 'cradles' to hold them - see picture. The sides of these are made of hardwood. I cut these out of pieces of birch firewood (http://www.woodgears.ca/reclaim\_lumber/index.html) The cradles are intentionally shorter than the boxes. This way, I can grab the top front edge of a box as a handle for pulling the boxes out without the next cradle above getting in the way. More practically, the pieces of firewood I made these from were only so long!



Cutting lap joints on tenon jig

The cradles consist of two L shaped rails that the boxes slide into, with cross pieces to make a square cradle (see picture above). The corners are joined with double lap joints. I used my tenon jig (http://www.woodgears.ca/table\_saw/tenon\_jig.html) to make these.

I then used two 8' 2x4 studs as uprights. I cut slots into them so that the sides of the cradles would go through part of the 2x4s. This partially so that the cradle has something to rest on, and partially to make the whole thing more compact. I then screwed the cradles in between the two 2x4 uprights.



# TNTCrazyLady tanHomesteader.weebly.com

The whole rack without any boxes in it has kind of a neat look on its own.



Cradle screwed into 2x4 upright

Because this is for the basement, I just screwed the uprights onto the floor joists above. On the bottom end of the 2x4's, I screwed in a round headed sheet metal screw, and drilled two shallow holes into the concrete floor. The screw pokes into the hole in the floor and keeps everything aligned. The whole thing is quite sturdy - sturdy enough that I could climb it.

The satisfying part was to subsequently transfer my junk into the boxes and into the rack and do away with the cardboard boxes. Looks so much more organized now. Makes me feel good about having all this junk to put into this rack!

### Woodworking projects - 10 steps for a simple garage trash organizer

http://www.canadianhomeworkshop.com/index.php?ci id=3046&la id=1

10 steps for a simple garage trash organizer By Canadian Home Workshop Photography by Dave Starrett, Illustration by Len Churchill



This simple and inexpensive garage project can be constructed and ready for its trashy duties in less than an hour!

Sometimes, in the name of organization and household sanity, it's important to be able to knock together a simple project in a matter of an hour. If you've made the mistake of offering to build something cheap and quick to solve a problem around the house, you can now deliver. This organizer is such a project. Simple materials and basic construction make it a real "it gets the job done" kind of endeavour.

### Download the illustrated garage trash bin organizer here!

(http://www.canadianhomeworkshop.com/multimedia/pdfs/recycling-centre.pdf)

### Materials:

- two 16"-wide x 8'-long laminated pine shelving panels
- one 4' x 4' piece of plywood, MDF or hardboard
- fifteen 2 1/2"-long and four 1 1/2"-long screws
- six #10 biscuits

### Tools:

- circular saw
- jigsaw
- biscuit joiner
- · cordless drill
- sandpaper
- straightedge

### Measurements:

Laminated pine sides (2): 3/4" x 16" x 48"
Laminated pine shelf: 3/4" x 16" x 44"
Laminated pine stretcher (2): 3/4" x 3" x 44"
Laminated pine shelf support: 3/4" x 1 1/2" x 44"
MDF or plywood back panel: 1/4" x 45 1/2" x 47"

### **Get started**

Cut the side and shelf parts using a circular saw. You can clamp a straightedge across the boards to guide the base plate of the saw. Check the ends for square and resaw if necessary. Tip: Instead of using a bench or sawhorse, work right on the garage floor. Place the wood on a piece of rigid Styrofoam insulation and set the blade so it just cuts through the stock.

Dry-fit the sides and shelf with three biscuits per joint. The shelf is angled downward slightly—1" from back to front—to promote drainage. Plunge a slot near each edge and one in the middle on each side, then plunge slots in the corresponding ends of the shelf. Tip: To line up the slots, draw a line representing the bottom edge of the shelf and clamp a straightedge along it. Rest the bottom face of the biscuit joiner against a straightedge.

Cut the bottom stretcher to length and width, then set it aside. Tilt your saw to 5º from square and rip the top stretcher and shelf support to size. These cuts create a bevel so these parts will match the slope of the shelf.

Trace a curve on the top of one side, then cut it out with a jigsaw. Smooth the curve using a belt sander or sandpaper wrapped around a block of wood. When the shape is smooth, trace it onto the second side piece and cut that one to shape. Tip: To prevent your jigsaw from splintering the top face of the board, pre-score the cut line with a utility knife.

Cut the 1/4"-thick MDF back panel to size. This part adds rigidity to the project.

Use some sandpaper (and a block plane if you have one) to refine any sharp edges.

Predrill four screw holes through each side into the end-grain of the shelf using a 1/8"-diameter tapered, countersinking drill bit. The screws strengthen the project and pull the sides together.

Time to assemble. Add glue to the biscuit slots, insert the biscuits and clamp the two sides to the shelf. Clamp the bottom stretcher between the two sides at the back edge to square the assembly roughly. Drive a #8 x 2 1/2"-long screw into a predrilled hole at each end, then repeat the process twice along the bottom stretcher. Add a bead of glue to the bevelled edge of the top stretcher and slide it into place between the uprights. Predrill for a pair of screws on each end, plus three more screws driven up through the shelf into the stretcher. Add the shelf support with a little glue and four 11/2"-long screws driven down through the shelf top.

Lay the shelf on its front and fasten the back panel to the back edges of the sides. Tip: For square assembly, align one long edge and hold it in place with finishing nails. Square an adjacent edge and tack it in place.

Attach a plastic foot to each of the four corners of the sides. A piece of vinyl stair runner on the shelf protects the wood from dirt and moisture.

Build Your Own Vintage Style Storage Cubby http://www.astorybooklife.com/home-decor/make-your-own-storage/ June 9th, 2008 by admin

\*\* A friend of mine down in the valley, made two of these. One for his garden supplies and one in the garage for storage and tools.





er.weebly.com

(http://freshdirt.sunset.com/2008/04/index.html)

My husband likes to take me on little dates. Sometimes we'll go for a ride around the countryside, or maybe we'll share a meal together. Many times, he'll choose the Cracker Barrel for breakfast, both because we love the food, and because he knows how much I love to peek around in the gift shop. He's such a sweetie. I can honestly say, that each time I walk into the gift shop, my eyes are immediately drawn to the tables, cubbies, and other display pieces!

I don't know how many times I have walked into an antique shop or home decorating store, and fell more in love with the display pieces than the items that are actually for sale!

While the sweet little sales lady at the Cracker Barrel shares the discounts of the day with me, I simply smile while thinking... but I want the display unit! I remember actually asking one little lady about a particular display unit, only to have her say... honey, that would probably cost you an arm and your leg! And she was right (mostly anyway).

I recently came across some really cute display pieces in a well known catalog, and as my little sales lady predicted, the prices were meant for the wives of Kings (not that I don't think of my sweetie as a King mind you.

I don't know what it is about me... maybe it's the creative thought process that my mind goes through... or maybe it's just the "I know we could make that" syndrome... but whatever the reason, my brain kicked in gear!

I wanted to find a nice storage unit that could be used for multiple purposes such as the – kitchen, entry, hallway, or garden house. My hunt was a great success, because today I found this great project for a "chicken coop style" storage unit over at <u>Sunset's Fresh Dirt Blog</u> (http://freshdirt.sunset.com/).

If you're style of decorating is...

- Country Farmhouse
- Cozy Cottage
- English Cottage
- Shabby Chic
- Primitive

Well, I should have just said ANY style, you will love this project!

Download The Project (http://freshdirt.sunset.com/files/Chicken Coop.pdf)

### Here's another version from Lowe's

(http://www.lowes.com/lowes/lkn?action=howTo&p=LawnGarden/gardencubbyinstruct.html)

As you can see from the picture above, Nina decided to leave the plain wood finish on her cubby, but I can see mine being painted with a nice thick coat of "chippy style" crackled paint!

There are so many color combinations to choose from! How about... cream & black, mustard & red, toupe & light blue... see what happens when I start thinking!

And you won't believe how much stuff this type of unit can hold! I have a friend who keeps her's right inside the front door. Then, when the daycare children come in, they put their shoes, hat, gloves, lunches, school papers, etc., in their own cubby!

Think about all of the different things you could fill your new cubby with...

- crafts
- videos & CDs
- books & magazines
- Plants, pots, and garden tools
- a pantry
- all of your quilts & other linens
- dishes & kitchen display
- scrapbooking supplies

I know you will enjoy this special piece!

\* Share your special storage pictures with us in the comment section!

### Kitchen Storage Ideas http://www.acehardware.com/info/index.jsp?categoryId=1285340

A kitchen is the most complex and often-used workshop in most homes, and in order to make that workshop as efficient as possible, it's important to have the tools of the trade well organized and easily accessible. There are a wide variety of kitchen organizing accessories available-some are made for specific brands of cabinets and others are designed to be added to standard modular cabinets.

But you can make your own accessories, too, custom-designed to fit your needs. This document explains how to build common kitchen accessories that will add storage space and help you organize your kitchen better.

Before you begin to build more storage space into your kitchen, first you need to know what needs to be stored. Whether you're adding space for pots and pans, dishes and glassware, trays and serving bowls, spices or packaged foods, the first step is to measure the implements you'll be storing so you know how big to build your storage units.

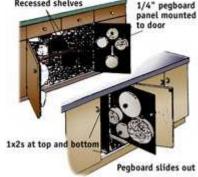
In this document you will find information about:

- Storing Pots and Pans
- Trays and Serving Pans
- Dishes and Glassware

# Step #1

### STORING POTS AND PANS

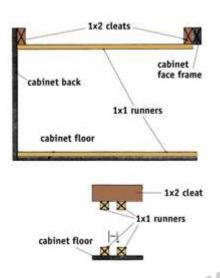
Pots and pans are among the most difficult "tools" to store because they come in a wide variety of shapes and sizes. One way to increase cabinet storage is by adding pegboard panels to the inside of the cabinet doors to hang the most commonly used pans, then maximize cabinet storage with recessed shelves (see first image, top).



- Use 1/4" pegboard for extra durability. If you have a choice between standard or tempered pegboard, choose the tempered-it's more water-resistant.
- To build pegboard door panels, first measure both the doors and the opening; the pegboard panels will have to be smaller than the door so they don't keep it from closing. Cut the panels, then mount them to the back of the doors with wood screws and spacers. Premade spacers are available from retailers who stock pegboard hooks. The spacers hold the panel away from the door so you can insert pegboard hooks.
- If your cabinet doors have magnetic or roller catches rather than self-closing hinges, you may want to replace the existing hinges with self-closing hinges. That way you can remove the catches altogether. If you decide not to replace the hinges, you'll need to remove the catches to install the pegboard panels. Then remount the catches on the bottom of the pegboard and on the floor of the cabinet.



- Build your recessed shelves so they are deep enough to accommodate the widest pans that will be set on them
  but narrow enough that they won't interfere with the pans hanging on the insides of the doors. To build them,
  first mount four shelf standards (see image) on the sides of the cabinet. The standards should be placed 1/2"
  from the back wall of the cabinet and 1/2" from the front of the shelf. As you install them, check them with a
  level to make sure they are plumb and that the slots in each of the four standards are level with each other.
- Then measure the distance from the face of the standard to the face of the opposite standard. Cut your shelves 1/4" shorter than this measurement. Install shelf clips on the standards, then set the shelves in place. Adjust them as necessary to provide about 1" clearance between the tops of the pans and the bottom of the next shelf.

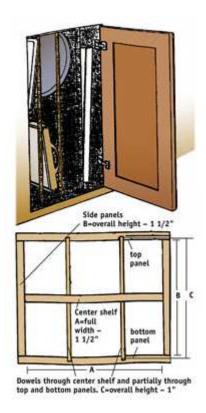




- A second strategy for storing pans is to build vertical pegboard panels that slide in and out of the cabinet and hang pots and pans on them (see top, first image above). Use 1x2s or 1x1s (actual size is 3/4" square) as runner at the top and bottom of the cabinet.
- Be sure to space the panels so there is plenty of room for the pans you plan to store. Install the bottom runners first, gluing and screwing them to the floor of the cabinet so there is about a 3/8" gap between them. Then use the level to mark the position of the top runner directly above the bottom runners.
- If necessary, fasten 1x2s horizontally at the front and back of the cabinet as cleats to attach the top runners (see image). The cleats should be level with the top of the door opening. Glue and screw the top runners in place as you did the bottom runners; the runners should project down into the door opening.
- Measure the vertical distance from the cleats to the floor of the cabinet, then measure from the back of the cabinet to the front. Subtract 1/4" from each dimension and cut 1/4" pegboard panels to that dimension. Slide the panels in place and hang your pans.

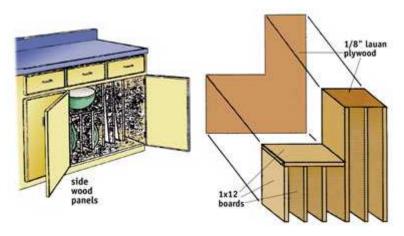
Step **#2** 

TRAYS AND SERVING PANS





- Large trays are also difficult to store because they take up a lot of space and you can't stack them too high. One solution is to build vertical dividers (see image).
- A freestanding divider made of 3/4" plywood with wooden dowel dividers is easy to make and can be moved later if you want. To build it, first measure the door opening. The overall dimensions of the divider will have to be about 1/4" smaller so it will fit into the cabinet.
- Cut the top and bottom panels so they are as wide as the overall dimension of the divider, and about 1" shallower than the overall inside depth of the cabinet. If you'll have a center shelf, cut it 1-1/2" shorter than the top and bottom panels, to allow for the 3/4"-thick side panels. Cut the side panels 1-1/2" shorter than the overall height of the unit to allow for the top and bottom panels.
- Mark the locations of four 3/8" dowels (two in the front and two in back) in the center shelf. Drill all the way through the center shelf with a 3/8" doweling bit.
- Lay the center shelf over the top panel, centered so it is 3/4" from each edge of the top panel. Mark the locations of the holes, then drill the top panel 3/8" deep. Repeat the process with the bottom panel (see image).
- Cut the dowels to length, 5/8" longer than the side panels. Drive the dowels through the holes in the center shelf, then fit the top and bottom panels in place. Glue and nail the top and bottom panels to the side panel, then glue and nail the side panels to the center shelf. If you want to cover the cut edges of the plywood, nail and glue 1/4" x 3/4" pine lattice or apply veneer tape over the edges.
- You can also make a built-in tray divider with solid plywood panels. Again, measure the door opening first, then size the divider to fit. You'll need enough 1x12 pine to make the vertical dividers and the shelf, and a piece of 1/8" lauan plywood for a backing and a top (see first image below).
- The spacing between your vertical panels and the height of the short dividers will depend on the sizes of the trays you'll be storing. Cut your panels, then glue and nail the short dividers to the shelf.
- Glue and nail the tall dividers to a piece of 1/8" lauan plywood to hold them together at the top, then fasten the two divider sections together. Cut an "L"-shaped piece of 1/8" lauan for the back of the assembly, then square the unit and attach the back (see second image below).
- Slip the unit into the cabinet and position it. Drill pilot holes at a 45-degree angle through the ends of the vertical dividers, down into the floor of the cabinet. Nail the front edges of the dividers into the cabinet.



## Step #3

### **DISHES AND GLASSWARE**

- If you don't have enough cabinet space for dishes and glassware, you can add space either by adding onto your cabinets or by building a freestanding shelving unit.
- The undercabinet shelves in this image are made of 1x12s; the material you use-pine, mahogany or other hardwoods, for example-will depend on the material your cabinets are made of. To build the shelves, first decide what you want to store in them. Then measure those items: the height and width of a glass or bowl, or a stack of plates, etc. Typically, you'll have 18" to work with between the bottom of the cabinet and the countertop, so you'll want to limit the height of your shelves to about 6" to leave counter work space.
- Cut the top and bottom of the unit to the full length of the cabinets it will fit
  under; cut the vertical dividers to the full height of the unit minus 1-1/2". Use
  1/8" lauan plywood for the back (see image).
- Assemble the shelf, then square it and fasten the 1/8" plywood back to make it rigid. Screw and glue all connections for maximum strength. Brace the shelf in place under the cabinets or have a couple of helpers hold it. Then drill and countersink 1/8" pilot holes 24" on center from the bottoms of the cabinets down into the top of the shelf, about 2" from the front of the cabinet. Take care not to drill all the way through the shelf.
- Fasten the shelf to the underside of the cabinets with #10 flathead wood screws. The screws should be long enough to penetrate the top of the shelving unit about 5/8"-enough to get a good grip but not quite all the way through. Most cabinets have a lip around the lower edge, so you'll have to set the shelf in place, then measure to see how long the screws should be.
- Finally, predrill and countersink screw holes in the back of the shelving unit, positioned 32" on center so they will go through the wall and into every other stud. Fasten the unit to the wall.

TOOL AND MATERIAL CHECKLIST		
Steel Tape Measure	Carpenter's Square	



1/8" lauan plywood

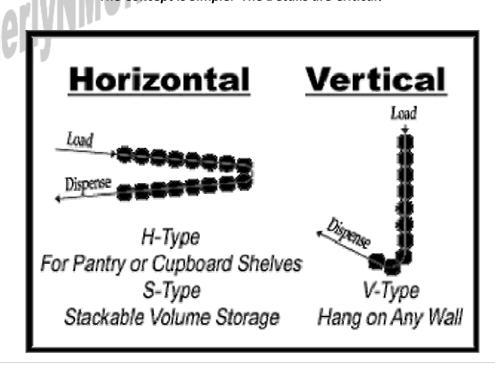
Circular Saw	Level
Saw Blades	Wood Screws
Screwdriver	Wood Glue
Pencil	Wood Filler
1x12 Boards	1/8" Lauan Plywood
1x2 Cleats	1x1 Runners
4d and 6d Finish Nails	Stud Finder
Electric Drill	3/8" Doweling Bit
3/8" Dowels	Paint, Stain, and Accessories

Check your state and local codes before starting any project. Follow all safety precautions. Information in this document has been furnished by the North American Retail Hardware Association (NRHA) and associated contributors. Every effort has been made to ensure accuracy and safety. Neither NRHA, any contributor nor the retailer can be held responsible for damages or injuries resulting from the use of the information in this document.

You can purchase plans on Building Your Own Can Storage Racks from <a href="http://canracks.com/">http://canracks.com/</a>

\*\* I put this hear just so you can see the principle of the can feeder. This is makeable on your own.

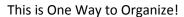
The Concept is Simple. The Details are Critical!





What's Lurking in the Back Corners?

And How Long Has It Been There?







Here's an Idea!

Front Load, Front Dispense.

### **Our Can Rack Features:**

Front or Top Loading	Racks can Accommodate Cans:  Small: Tomato Paste Size  to  Large: #10 (Gallon Size)
Front Dispensing	Racks Are Built in Modular Units From One-Cell to Several Cells (To Suit Your Space Availability)
Automatic Rotation (First in-First Out)	No More Outdated and, Therefore, Wasted Food

Plans for the Do-It-Yourselfer

Can racks of various kinds have been around for a long time, but how many of them actually

function properly? You may have tried the refrigerator racks for soda pop; you know, the kind where the cans lock-up at the back end.

Our rack designs consider all of the things that can go wrong and the details are coordinated to provide free flow of the cans under all loading conditions.

### ONE SIZE DOES NOT FIT ALL!

Don't waste time and material experimenting. We provide user tested, professionally detailed drawings and instructions.

The racks are built from simple, inexpensive materials, available at your Home Center.

A table-saw is suggested for cutting materials, but cutting can be done with a circular saw or even by hand.

Material for the construction of a 4-cell rack, to store 52-three-inch diameter cans (the most common size), will cost as little as \$10.00.

A typical small pantry, behind a door 2'-0" wide by 6'-8" high, with 24" deep shelves, can accommodate about 400 cans of food, in various sized cans. All visible, easily accessed and automatically rotated.

For serious food storage, the S-series racks are stackable & occupy a floor space 24" x 48". They can be stacked a maximum of 5-units high (or 6'-0 max height). A typical bank will hold over 400 cans of various sizes.

A weekend's work could have your system in operation.

# Standard Plans \$14.95 1st Class Postage Paid! ("1st Class postage paid" applies to US orders only)

H212-12 H212-16 H262-16*	Horizontal Rack for 2 1/8" to 2 1/2" diameter cans, 12" deep  Horizontal Rack for 2 1/8" to 2 1/2" diameter cans, 16" deep  Horizontal Rack for 2-5/8" to 3-1/2" diameter cans, 16" deep  Horizontal Rack for 2-5/8" to 3-1/2" diameter cans, 23" deep
H262-16*	Horizontal Rack for 2-5/8" to 3-1/2" diameter cans, 16" deep
	Horizontal Rack for 2-5/8" to 3-1/2" diameter cans, 23" deep
H262-23*	
H362-23	Horizontal Rack for 3-5/8" to 4-1/4" diameter cans, 23" deep
H625-23	Horizontal Rack for #10 cans (6 1/4" Diameter), 23" deep
S262*	Horizontal, Stackable Rack for 2 5/8" to 3 1/2" diameter cans Rack is 24" x 48" x 12" high
S362	Horizontal, Stackable Rack for 3 5/8" to 4 1/4" diameter cans Rack is 24" x 48" x 14" high

S625	Horizontal, Stackable Rack for #10 cans (6 1/4" diameter cans) Rack is 24" x 48" x 18 1/2" high
V212-24	Vertical Rack for 2 1/8" to 2 1/2" diameter cans, 24" high
V262-24*	Vertical Rack for 2 5/8" to 3-1/2" diameter cans, 24 high

<sup>\*</sup>Most of your canned goods will fit in the 262 sized racks. Buy all eleven plans for \$110 and save \$54.45

Custom designs are available. E-Mail us your requirements at requests@canracks.com. We take all requests by email only! Please make sure we have your email address so we can respond.

You can purchase other more complex plans here <a href="http://www.plansnow.com/garage.html">http://www.plansnow.com/garage.html</a>

### **Home Improvement Plans - Garage**

Easy-to-download plans for building garage workbenches and garage storage cabinets. Plus, shelving and organization ideas for clearing up clutter in a garage. Step-by-step plans take you through every phase of your home improvement project.

Garage Shelves



**Garage Organizers** 



Storage Cart



**Storage Loft** 



Workbench



Wall Workshop

I want this one



**Garage Workcenter** 



Mechanic's Bench



**Recycle Center** 



**Fold-Down Bench** 



**Shop Cabinet** 



**Garage Makeover** 



### **Clean Up Center**



These people charge you like \$30 dollars for the plans. To me all that is really needed is knowing how much wood you need ... you decide ... but I really like the next one;-}

### Recycling Center Woodworking Plan http://www.plansnow.com/dn1157.html

Roll-around cart holds four recycle bins for keeping paper, glass, and plastics separated in your garage. Slide-out shelves for access to the bins.

### Fold-Down Workcenter Plan http://www.plansnow.com/folddown.html

Wall-mounted work center takes up little space in the garage, but offers lots of storage. When it's time to work, the front folds down to create a worksurface.

### Wall-Mounted Storage Bins Plan http://www.plansnow.com/wallbins.html

Storage that moves — that's the idea behind this storage system. Take a bin, hook it into strips mounted to a wall or carry it to your worksite.

### Utility Bench Plan http://www.plansnow.com/utwor.html

Every shop or garage needs a durable work surface for making repairs or assembling projects. Our Utility Workbench is the perfect solution.

### Strategies for Setting Up Shop http://www.plansnow.com/dn3067.html

Most of us carve out shops wherever we can find the space (like in a garage)—and that means making a few compromises in how the shop is arranged.

### Wall-Mounted Project Shelf http://www.plansnow.com/dn1144.html

Compact shelf is a perfect garage storage solution. It's not meant to hold every tool you own, but it's perfect for keeping must-have items close at hand.

### **Garage Organizers Woodworking Plan – My favorite**



Easy-access rolling cabinets are perfect for storing tools, garden supplies, and other bulky items. Tall, mobile organizers line up in your garage like giant filing cabinets. Simply pull out one of the units, grab what you need, and then roll it back in place.

Unique plan design features tough, durable construction. We used a center divider and a hardwood face frame for added strength and longevity. Overall dimensions: 34" W x 24" D x 77-1/4" H. This project plan appeared in Workbench magazine No. 284.

Kitchen Storage & Trash Bin Combo Unit http://housewares.about.com/od/storageorganizers/qt/kittrashcombo.htm By Mariette Mifflin

It's always hard to find that spot for the trash bin in the kitchen. Sometimes, we attach it to the inside of the cupboard, or opt for a small refuse bin.

This Kitchen Storage and Trash Bin Combo has great potential, adding valuable storage to the kitchen, while housing and hiding the trash bin. It is made of high quality MDF, with a solid wood cutting board, and comes with 3 wicker baskets and a removable garbage bin that uses 13 gallon refuse bags. anHomesteadel



Not really limited to the kitchen, this Combo unit could also be used in a bathroom, laundry area or bedroom for laundry instead of trash. It would also be a great accent in the family room, and provide additional workspace and storage.

So versatile, this cart could provide much needed storage and trash or laundry bin anywhere in the house.

Plans for Entry Storage Bench/Shelf System from http://knockoffwood.blogspot.com/2009/11/plans-for-entry-storagebenchshelf 2314.html

\*\*\*\* Now put your MacGyver hat on and picture this with enough "cubes" to store a go-bag for each family member. Stabilize the bottom and add castors for mobility.

You've wanted this piece, but you never thought it was worth \$550 dollars. \$550 for MDF? Really? Well, if you really want, you can buy something comparable for \$550 (for example see http://www.potterybarn.com/products/samanthaentryway-collection/popup/more-views.html)



image created by Ana White for Knock-Off Wood

But if you are smart, and creative, resourceful, and not afraid of a little muscle building, character chiseling sweat, how about \$50, and solid wood?



actual reader photo

This plans has been built by many readers



actual reader photo available on our Flickr Brag Board http://www.flickr.com/groups/knockoffwood

### And the bench is popular too!

From Karen over at our Flickr Brag Board and our Facebook Fan Page http://www.knockoffwood.blogspot.com/



From caribou county over at our\_Flickr Brag Board



Go ahead, you can say it. You're a carpenter, Ana, not a photographer. :)

### **Cut List for the Bench**

- 2 1x12 @ **17 1/4** (sides)
- 2 1x12 @ 13 1/2" (vertical dividers)
- 1 1x12 @ 46 1/2" (bottom shelf)
- 2 1x12 @ 48" (top shelves, doubled up)
- 1 1x4 @ **49 1/2"** (back lip for top)
- 2 1x4 @ **11 1/2** (side lip for top)
- 2 1x4 @ 11 1/2 (side toekick)
- 1 1x4 @ **49 1/2** (front toekick)

plywood for back, 18"x48"

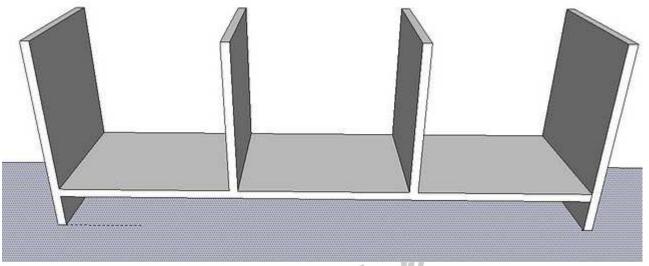
### **Cut List for Shelf**

- 2 1x8 @ 46 1/2" (bottom shelf and vertical board for hooks)
- 2 1x8 @ 15 3/4" (sides)
- 2 1x8 @ 7 1/2" (vertical dividers)
- 1 1x8 @ 48" (top, bottom piece)
- 1 1x3 @ 49" (top, top back piece)
- 1 1x6 @ **49**" (top, top front piece)

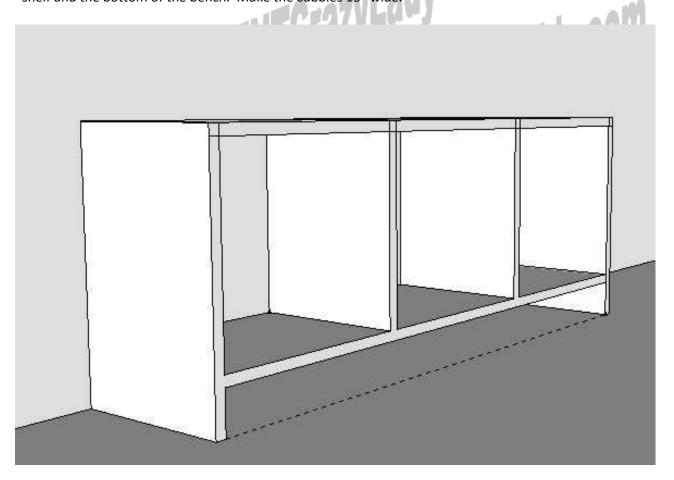
plywood for back 8" x 48"

3 double hooks

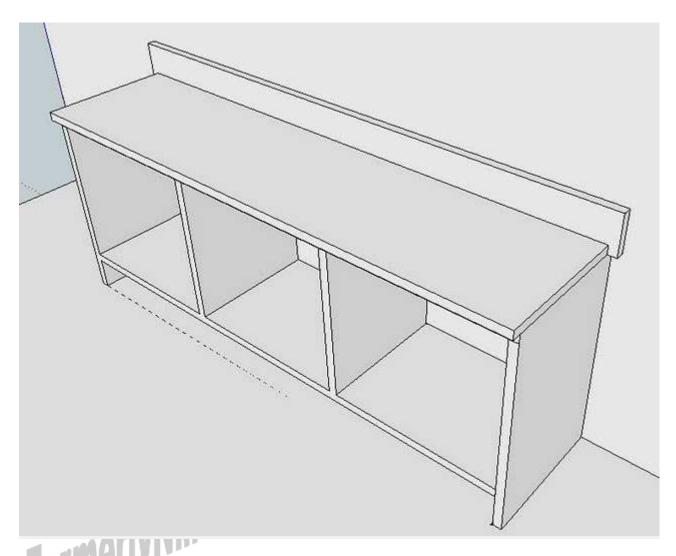
### **Constructing the Bench**



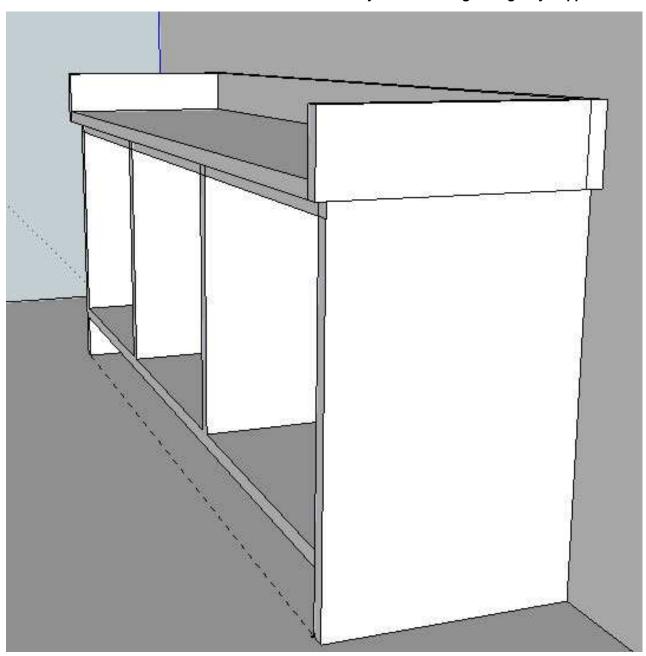
**Box.** Begin building the bench as shown, keeping all edges flush and leaving 3" from the bottom of the bottom shelf and the bottom of the bench. Make the cubbies 15" wide.



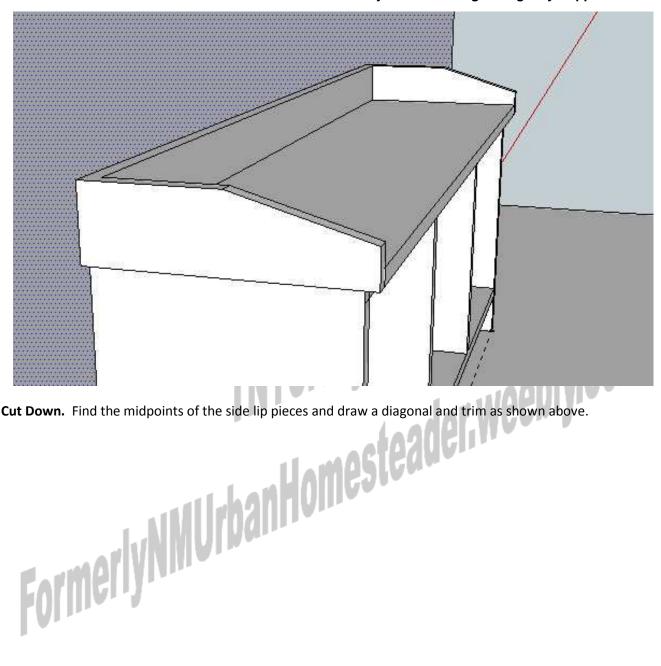
**2. Top.** Place one of the top pieces on top of the bench as shown, keeping everything flush.



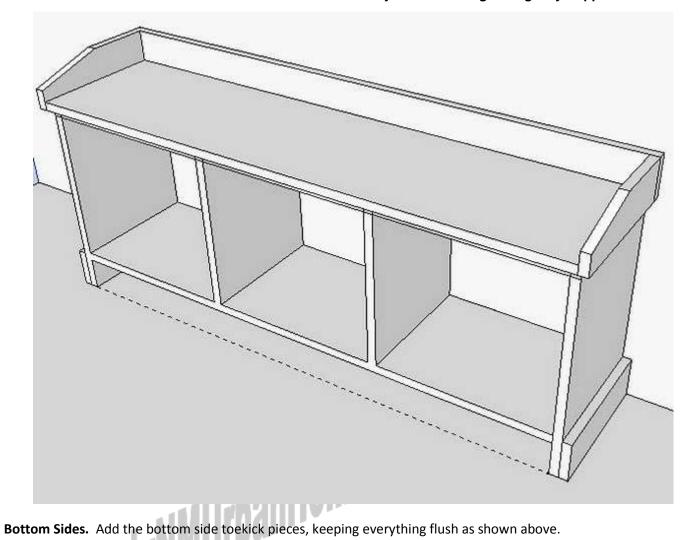
**Top.** Now add the second 1x12 @ 48" on top of the previous one (from step 2), placing a 1x4 behind it. Overhand the  $1x4 \ 3/4$ " on either end, and nail the 1x4 into the top 1x12, and the top 1x12 into the bottom 1x12. The top 1x12 should be flush on the sides, and overhand the front 3/4".



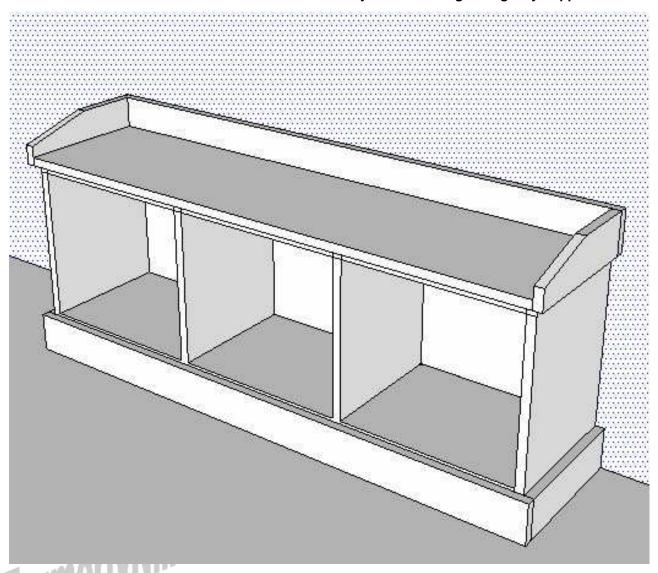
**Top Sides.** Take the two 1x4 side lip pieces, and attach to the top  $1x12 \times 48$ " as shown.



**Side Cut Down.** Find the midpoints of the side lip pieces and draw a diagonal and trim as shown above.



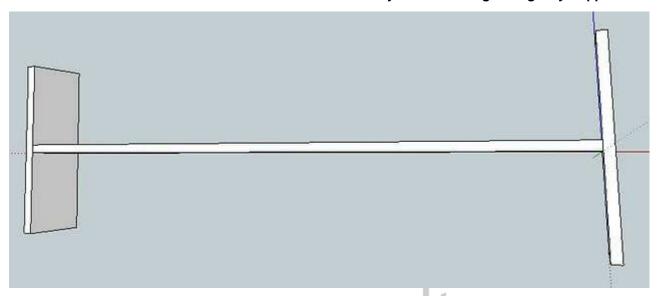
**Bottom Sides.** Add the bottom side toekick pieces, keeping everything flush as shown above.



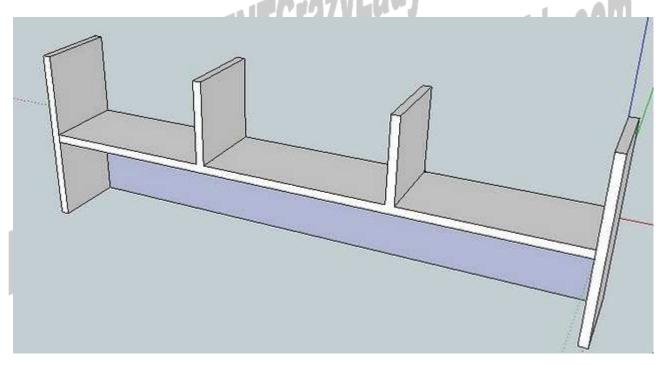
**Bottom Front.** Add the front toekick, nailing into the side pieces as shown. Cut the front toekick piece out as desired. The diagram shown was not cut out.

Back. Add the plywood to the back, and fill nail holes with wood filler. Sand and finish as desired.

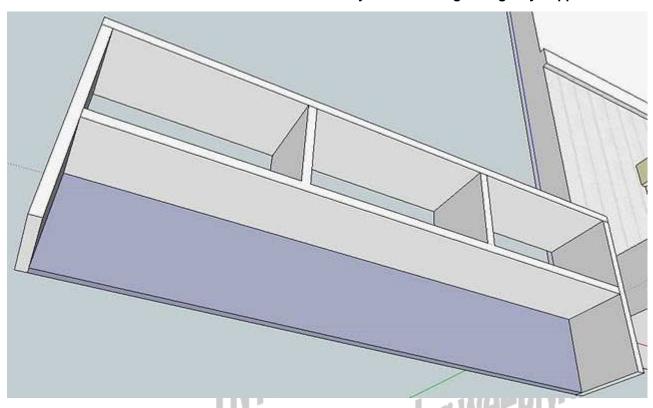
# **Shelf Construction**

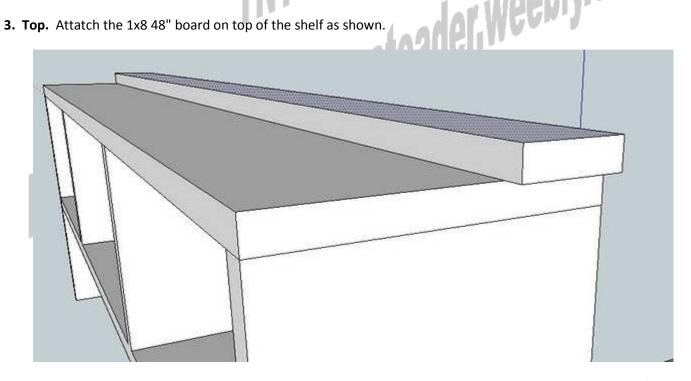


**Box.** Begin building the shelf by attatching the side pieces to the bottom shelf piece as shown. Leave 7 1/2" on either side of the shelf. The shelf will be centered on the sides, as pictured.

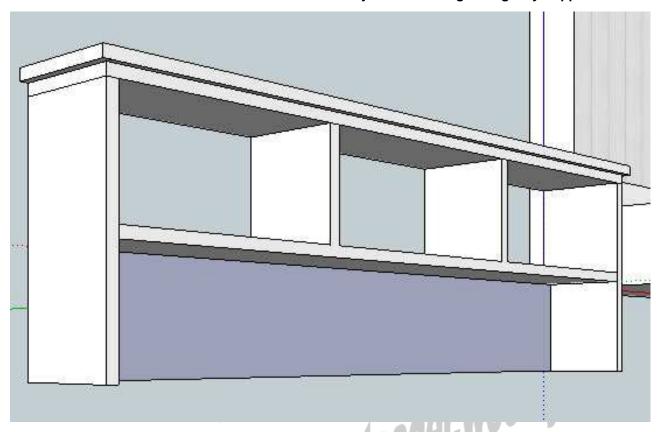


**2. Box.** Attatch the board where the hooks will be placed, and the vertical dividers. Leave 15" between each divider, making each cubby 15" wide.





Second Top. Now attatch the 1x3 board as shown, on top of the 1x8 attatched in step 3. Leave a 1/2" overhang on either side.



**Front Second Top.** The 1x6 will be attatched to the top, in front of the 1x3 as shown.

**Back.** Plywood the back and cut out the sides as shown below. Putty, sand and finish as desired. Add hooks and secure to a stud in the wall for saftey and sturdiness.



How about an old fashioned Storage or Blanket Chest? <a href="http://www.am-wood.com/apr97/chest.html">http://www.am-wood.com/apr97/chest.html</a>

\*\* Use your imagination here - can store sleeping bags, blankest, linens, camp kitchen - get the idea!

# **Storage Chest**

This chest was designed to have a dual purpose: firstly (and most obviously) as a storage unit and secondly as a coffee table in a small living room. The shape is very basic, but is the most functional for storing toys and games in. In order to improve the aesthetic appeal of the chest it was decided that dovetail joints would be used to join the sides. Details of how to create easy dovetail joints has been included in the Joints section. However, it is not necessary to use



dovetail joints: any form of jointing, such as dowel joints, could be used.

#### Construction: The base unit

The sides of the base piece were made out of pine with the front and back being of dimensions  $30 \times 9 \times 3/4$  inches and the sides  $16 \times 9 \times 3/4$ .

Having cut these pieces to size, the first job is to create the dovetail joints. These were done using a router and a dovetail template (see joints section for more details) with the dovetail showing on the side pieces, not on the front and back.

Once the dovetails have been cut, the next job is to create a means of attaching the base wood into the front and sides. The base was made out of a piece of 1/2 inch thick plywood. To attach the base plywood to the sides and front, a slotted tenon joint was cut 1/2 inch from the bottom of the sides, back and front. The size of this slot is 1/2 inch wide (the same as the thickness of the plywood) and 3/8 inch deep. The size of the base plywood is 29 1/2 inches long by approximately 16 inches wide. It is important that you take your own precise measurement of this piece once you have cut the dovetails as the exact dimensions will depend on the depth of the joint and so on. To measure this size, dry fit the four sides together and measure the dimensions of the inside of the box. Then add on a measurement of 3/8 inch at each end for the depth of the slotted tenon joint.

When you have cut the base to size, glue the four sides and the base together and clamp for several hours, ensuring that the sides are at 90 degree angles to the front and back pieces.

#### The lid

The lid is built in a very similar way. Cut out the front and back to the dimensions  $30 \times 5 \times 3/4$  inch, and the sides  $16 \times 5 \times 3/4$  inch and route out the dovetails. Take a moment to ensure that you are cutting the dovetails out of the sides (as you did on the base unit) rather than the front and back.

Unlike the base unit, you do not need to route out a slot for the lid. Instead, the lid is made from pine, of rough dimensions  $30 \times 16 \times 3/4$  inches. Again, take your own measurement by dry fitting the four sides. Obviously, to make a piece that is 16 inches wide, you will need to join two pieces of pine together by doweling them.

Glue the four sides together and then glue the top on. There is no need for screws or nails, simply use a strong wood glue and leave the whole unit clamped over night.

## Finishing the project



Sand the entire chest, taking extra care to make sure that all of the corners are neatly rounded off - the last thing you want is sharp corners that you may bang you leg into - and then wax it.

Add two hinges to the back of the unit and a clasp to the front. In this project it is worth buying ornamental hinges and a clasp as it adds to the design - hiding the hinges will make the chest look rather dull.

Finally, add a chain or similar mechanism to the inside of the chest to stop the lid from swinging open too far, and consequently damaging the hinges.

# How to Build a Storage Bench <a href="http://www.diynetwork.com/how-to/how-to-build-a-storage-bench/index.html">http://www.diynetwork.com/how-to/how-to-build-a-storage-bench/index.html</a>

This roomy box will store all kinds of things and provide extra seating outdoors. Learn how to build this storage box with these step-by-step instructions.



#### **Materials**

- 2x4 boards
- 1x4 boards
- wood screws
- modular porch system kit
- 3/4" plywood
- 3" strap hinges
- 3" concrete screws

#### **Tools**

- miter saw
- circular saw
- pneumatic framing gun
- hammer drill
- framing square
- 2' level
- 18-gauge nail gun

#### Step 1: Prep the Area

**Note:** Quantities of the materials will vary from job to job.

Examine the area where the bench will be built, take all the necessary measurements and notes. Use a chalk line to mark out the area where the bench will sit. Clean and prep the area.

# Step 2: Frame the Bench

Cut the 2x4s to length for the bench frame. If necessary, adjust the length of the upright pieces to accommodate any uneven spots in the floor. Use a hammer drill to attach the back and side sections of the frame to the walls. Then attach the upright pieces to the walls so that the bottoms sit on the floor and the tops butt up to the back and side sections.

# **Step 3: Construct the Front Section**

Build the front section by nailing 2x4s to form the front and sides. Line it up with the marks made earlier. Attach the L-shaped frame to the back and side with wood screws. Both ends of the L frame should make contact with the



corresponding walls. Make sure it is level with the back section. Attach the ends of the L to the back and side sections with screws. Repeat for the bottom of the front section, but use the hammer drill to attach the lower section to the floor (use 3" concrete screws for concrete floors). Measure and cut pieces of 2" x 4" to fit between the upper and lower L's of the front and side. Position the upright pieces between the top and bottom plates of this front section and directly across from the upright pieces on the back. Hammer them into place and secure with screws.

# Step 4: Double the Front and Back Support

Attach another 2" x 4" to the front of the back support along the wall, effectively doubling it up. Screw a 2" x 4" flat against the bottoms of the upright pieces against the wall on the back and right side.

# **Step 5: Install the Bottom Supports**

Measure the inside of the bottom of the box. Cut pieces of 2" x 4" to fit on the floor between the front and back bottom plates where the upright pieces meet. Keep these 2" x 4" supports lined up and level with the top of the 2x4s that were attached to the wall. Predrill the bottom supports so they can be toenailed into the bottom plates. This is where the 3/4" plywood bottom will sit.



#### Step 6: Attach the Plywood Sides

Cut and attach 3/4" plywood to the outside of the frame. Keep the top edge of the plywood flush with the top of the frame. Cut and attach the plywood bottom to the inside of the frame.

For the top, cut a piece of plywood 1" longer and wider than the plywood-covered frame. Draw a line down the length of this top piece 3-1/4" in from the edge. Using a circular saw, rip down this line to separate the top piece.

Attach the 3-1/4" top plywood piece to the top of the doubled-up 2" x 4" back support, using an 18-gauge finish nailer. This is the section of the top to which the strap hinges will be attached.



**Step 7: Attach the Top Piece** 

Cut the top plywood piece 1" longer the length and width of the plywood covered frame. Draw a line down the length of this top piece 3-1/4" from the edge. Using a circular saw, rip down this line to separate the top piece.

Attach the 3-1/4" top plywood piece to the top of the doubled up 2" x 4" back support, using the 18-gauge finish nailer. This is the section of the top to which the strap hinges will be attached.

# **Step 8: Attach the Strap Hinges**

Line up the larger section of the top with the smaller section that was just attached. Separate the two top pieces where they meet, using 3" framing nails as spacers. Determine how many strap hinges to use, then mark their locations. Use one strap hinge every 16" to 20".

Attach the stationary part of each hinge to the 3-1/4" section of the top with 1-1/2" wood screws. Make sure these screws sink into the supporting 2x4s. Attach the strap part of the hinges to the flip top. Paint or stain the outside of the bench.

#### Step 9: Attach the Trim

Cut the 1" x 4" clear pine pieces to length, and attach them along the top and bottom of the visible face of the bench to create horizontal trim.

Cut some 1" x 4" pieces (stiles) to fit between the top and bottom trim. Start by covering the plywood corner and work outward. This style of trim will create a panel look. The number and spacing of the stiles used is a matter of personal preference.



DoltYourself.com (http://www.doityourself.com/) has some great storage projects plus much much more.

How to Build a Garage Storage Cabinet <a href="http://www.ehow.com/how 2031829 build-garage-cabinet.html">http://www.ehow.com/how 2031829 build-garage-cabinet.html</a>

Is your garage a cluttered mess? You can change all that with a storage cabinet. However, storage cabinets can be quite expensive. To save your money, you can build your own garage storage cabinet. The project is fairly simple and can be done even by beginners.

# Things You'll Need:

- Screws or nails
- Gloves
- Protective eyewear
- Paint or stain
- Sander (optional)
- Hammer or drill
- Wood
- Sealant (optional)
- Doorknobs
- Dimensions of the cabinet
- Saw
- Hardware

# Step 1

Measure the items your wish to store in your garage storage cabinet.

• Step 2

Figure out the dimensions of your outdoor storage cabinet. Depth should be at least the depth of your storage items plus two inches, length should be at least the length of your storage items plus six inches, and width should be long enough to accommodate all of your items.

• Step 3

Decide if you want shelves. Each shelf will be the depth (minus the ply of the wood used for the back) by the width.

Step 4

Figure out how much wood you will need. At the very least, you will need two pieces that are width by height, two pieces that are width by depth, two pieces that are depth by height, and extra wood to create legs, support, shelves and edging.

Step 5

Purchase wood at a lumberyard.

Step 6

Purchase other supplies like paint or stain, weatherproofing, hardware, door knobs and nails or screws.

Step 7

Measure and cut each piece of wood so that you have a top, bottom, back and two sides.

• Step 8

Measure and cut shelves if desired

Step 9

Attach shelves to the back of your storage cabinet using screws or nails. If they need to be supported, attach the support as well.

• Step 10

Attach top, bottom, and sides to the back and shelves using screws or nails.

Step 11

Cut a final piece the same size as the back for the door. You can either make this one large door or cut it in half to make two small doors.

Step 12

Attach the doors using hardware

• Step 13

Attach knobs to the door or doors.

Step 14

Use thin strips to create an edging at the top and bottom of your cabinet and attach hardware for the doors to latch.

Step 15

Attach legs to the base of the storage cabinet.

Step 16

Paint or stain the wood to match your personal preferences.

Step 17

Consider weatherproofing your storage cabinet, since it will be in a garage and may be susceptible to dampness.

# Tips & Warnings

- Purchase pre-made plans if you don't want to design one on your own or it you want a more elegant design.
- You can put hooks or pegs in your garage storage cabinet or make shelves to better organize your items. Drawers are another option, but they are more difficult to create.
- Be careful when using power tools. Always wear protective items to keep your hands, eyes and ears safe.
- Make sure you support each shelf adequately if it will be holding heavy items.

**Get some great DIY Headboard ideas at HGTV** <a href="http://www.hgtv.com/topics/headboards/index.html">http://www.hgtv.com/topics/headboards/index.html</a> including storage headboards!

\*\* Ok you can make this manly, rustic or frou-frou – whatever you want. It just depends on how you finish it what it will look like.



**Build Your Own Storage Ottoman** from <a href="http://www.hgtv.com/decorating/build-your-own-storage-ottoman/index.html">http://www.hgtv.com/decorating/build-your-own-storage-ottoman/index.html</a> By Matt Fox

\*\* I've said it before and I will say it again — whenever you are looking at furniture — THINK MULTI-FUNCTIONAL — Ottomans are a great place to store just about anything! Also think in terms of the slip-cover as a project by itself to cover any stacked storage containers you are using as end tables and the like.



After a long day of work, it feels great to hit the recliner. Once I have the remote in hand, I'm a happy guy.

lomesteader: weehly.com

Recliners do have a few disadvantages, however. First of all, recliners are often large and bulky; they require quite a bit of floor space. And they can be quite pricey. As much as I hate to admit it, my cohost, Shari Hiller, is right when she says that recliners don't work with every type of decor. So how does a guy survive without a recliner? There's always an ottoman.

Ottomans have become very popular in recent years because they are so versatile. They come in a variety of shapes and sizes and can be used as extra seating when company arrives. They can serve dual duty as a coffee table, making them a safe and stylish alternative for families with young children.

Storage ottomans can be used to keep blankets and throws out of sight, or as a place for games, files or videos. Ottomans also are a great way to introduce an interesting new fabric or color into the design of a room.

But as far as I'm concerned, the most important use of an ottoman is to rest your weary feet at the end of a long day.

Obviously, ottomans are available through furniture stores, but an ottoman is really very easy to make. If you'd like to make your own storage ottoman, you'll need the following materials:

#### **Materials and Tools:**

fabric of your choice
cotton or bonded polyester batting
ribbon
1/2" plywood
hot glue gun
staple gun
drill
bits (regular and counter bore)
screws
wood glue
latex paint (color to match fabric)
4-inch-thick foam
brass piano hinge
friction lid support
4 rolling casters

# Steps:

- 1. To build your storage ottoman, you must first create a 20-inch by 24-inch lidless box. Cut the front and back piece of the box to measure 20-by-20. The two sides of the box should be cut to measure 23 inches by 20 inches. The bottom of the box should measure 19 inches by 23 inches.
- 2. To join the pieces of the box together, first drill pilot holes. Use a counter bore over each hole, which will allow you to drive the screw below the face of the board. (This will protect the upholstery fabric from rips and tears.) Join the sides and bottom, first adhering them with wood glue and then screwing them into place for added strength. Wipe away any excess wood glue with a damp rag.
- 3. Cut a piece of plywood to 20-by-24 inches for the lid of the ottoman.

- 4. Next, paint the interior of the box and the bottom of the lid with a latex paint matching in color to the upholstery fabric. This may require multiple coats. Be sure to let each coat dry completely before beginning the next coat.
- 5. Use an old electric knife to cut a piece of foam for the top of the lid. Cut the foam so that it will overhang the frame by 1/8 to 1/4 inches. Using a generous amount of glue, attach the foam to the top of the lid.
- 6. Cut a 31-by-35-inch rectangular piece of cotton or bonded polyester batting. Use the batting to cover the foam, wrapping it around the edges of the lid. Secure in place with staples. Tightly wrap the four sides of the ottoman body with batting. Staple in place.
- 7. Cut a piece of fabric measuring 22-3/4 inches 89 inches. Using a 1/2-inch seam, stitch the short sides together. Slip the fabric over the ottoman. Staple the top edge to the inside of the box. Staple the bottom edge of the fabric to the bottom of the box. Attach the casters to the bottom of the box, each about two inches in from a corner.
- 8. Cut a 31-by-35-inch rectangular of fabric. Wrap it around the lid and secure with staples. Hot-glue ribbon in place to hide the staples in both the lid and the box.
- 9. After drilling pilot holes, install the piano hinge and friction lid support to hold the top and bottom pieces together.

Your ottoman is now ready for use. Store a few snacks in it, and it will be even better than a recliner after a long day at work. Just be sure to remember where you put the remote.

than Homesteaugh (Matt Fox and Shari Hiller alternate writing this column. They also are authors of Real Decorating for Real People and cohosts of the Home & Garden Television show Room By Room.)

# **Related Content**

Build a Coffee Table to Fit Over Storage Ottomans (http://www.hgtv.com/home-improvement/build-a-coffeetable-to-fit-over-storage-ottomans/index.html) A custom coffee table with a marble inset is made to slide over a set of cushioned ottomans....

Craft Project: DIY Wall Shelves from <a href="http://www.womansday.com/Articles/Crafts/Craft-Project-DIY-Wall-Shelves.html">http://www.womansday.com/Articles/Crafts/Craft-Project-DIY-Wall-Shelves.html</a> Learn how to make your own shelf By Pamela Acuff Posted July 28, 2009 from Ty Pennington at Home; Volume 2

> "No great discovery was ever made without a bold guess." Isaac Newton.



Photo: © Aimee Herring

Need to create some space? Then check out the directions below for easy-to-make shelves.

# **Skill Level: Beginner**

#### **Materials**

Carpenter's level; pencil; wooden or fiberboard shelves or 1x12-inch boards cut to size; acrylic paints: white, red; paintbrushes; mounting brackets and screws; assorted fabric-covered desk <u>accessories</u> (such as binders, desk blotter and boxes) in orange and red; small labels with metal frames; craft glue.

# **Directions**

Using level, mark shelf placement on wall above desk. Space shelves to allow for size of desk accessories.

- 2. Paint shelves and brackets white; let dry. Paint front edges of shelves red; let dry.
- 3. Mount brackets on wall where marked; place shelves on brackets.
- 4. Glue labels to fronts of boxes and spines of binders.

# **DIY Decorative Storage Bins**

Turn plain plastic bins into wheeled containers By Pamela Acuff Posted July 28, 2009 from Ty Pennington at Home; Volume 2



Photo: © Aimee Herring

As useful as plastic storage bins are, they are not the prettiest things to have lying around the <u>house</u>, which is why they are usually stuffed under beds and on top of closets. But, what are you to do when you have a space that is out in the

open that needs a storage solution? Check out the do-it-yourself craft project below, which transforms basic bins into chic clutter collectors.

# Skill Level: Beginner

#### **Materials**

Large plastic storage bins; tape measure; handheld drill with bits; cotton fabric in desired pattern; chalk marking pencil; scissors; iron and ironing board; decoupage medium; foam paintbrush; awl; heavy twine or rope; four plastic wheels and mounting hardware.

#### **Directions**

Place bin bottom side up. About 1 inch from each corner, drill a hole large enough to accommodate stem of wheel. Place bin right side up. Drill two holes, about 4 inches apart, on front of bin for handle.

- 2. Measure <u>circumference</u> and height of bin; add 3 inches to each measurement. Measure, mark and cut fabric to these measurements. Fold over one long edge of fabric 1 inch and press.
- 3. Place bin on work surface with one side up; brush on a generous <u>coat</u> of decoupage medium. Smooth fabric over side, aligning pressed folded edge just under rim of bin and allowing excess to extend at bottom.
- 4. Rotate bin on work surface with adjacent side up; <u>apply</u> medium and smooth fabric in place in same manner. Continue attaching fabric to each side of bin in same manner.
- 5. At raw edge, turn fabric under 1 inch and use additional medium to secure lapped edges.
- 6. Apply medium to outer 2 inches of bin bottom and smooth fabric in place, forming mitered corners.
- 7. Using awl, puncture fabric over each of the four wheel holes and each of the two handle holes.
- 8. Cut 10 inches of twine; push twine ends through handle holes and knot on inside, leaving some slack.
- 9. Attach wheels to each lower corner hole.

# **Craft Project: Simple Slipcover for Shelves**

Create a hidden storage section with this decorative cover By Pamela Acuff Posted July 28, 2009 from Ty Pennington at Home; Volume 2

\*\* Use this pattern to create table covers for storage boxes that you are using as coffee or end tables.



Photo: © Aimee Herring

Often, the best ideas are hidden from the naked eye. Take this covered table. It looks like a regular end table, but is actually a metal stand with shelves for extra storage. Make a slipcover to compliment your decor and no one will know the difference.

## Skill Level: Beginner

#### **Materials**

Steel storage shelf unit or square or rectangular end table with shelves; tape measure; chalk marking pencil; several yards of cotton fabric; scissors; fabric glue or thread and sewing machine; iron and ironing board.

**NOTE:** This project was glued, but you can sew it if you wish. Use a 1/2-inch seam allowance wherever pieces are glued, and stitch a 1-inch double hem in place.

# **Directions:**

Measure length and width of top of shelf unit or table; add 1 inch to each measurement. Measure, mark and cut piece of fabric to these measurements for cover top.

- 2. Measure circumference of shelf unit; add 1 inch. Measure height of shelf unit; add 21/2 inches. Cut one piece of fabric to these measurements for cover sides.
- 3. With right sides facing, raw edges matching, glue short ends of side piece of fabric together with 1/2-inch seam.
- 4. Turn under and press 1/2 inch on one long edge of side piece of fabric. Glue pressed edge to outer edges of top piece, raw edges matching.
- 5. Turn under and press 1 inch double hem along lower edge of side piece; press. Glue in place to hem.
- 6. Place cover over shelves.

#### **Hanging Baskets Craft Project**

Create storage where furniture just won't fit By Pamela Acuff Posted July 28, 2009 from Ty Pennington at Home; Volume 2

\*\*\* Using some cable or heavy duty chain and wooden, metal or plastic bins this can hang in your garage for storage.



Photo: © Aimee Herring

In small bedrooms, bathrooms and kitchens, sometimes, there's just not enough space for another piece of furniture. That's where this handy craft project comes in. You can create pockets of storage by hanging a series of wicker baskets eader weeply from the ceiling by following the directions below.

# **Skill Level: Beginner**

#### **Materials**

Spool of heavy cord or twine; tape measure; scissors; set of three nesting wicker baskets; slim screwdriver (optional); heavy-duty screw-in cup hook.

# **Directions**

Cut four 2-yard lengths of cord. Tie one to each corner of large basket by pushing ends between woven strands. Use a slim screwdriver to nudge the twine through the strands if necessary.

- 2. Measure up about 12 inches on each cord; tie a small overhand knot. Slip ends through corners of medium basket in same manner, pulling cords until small knots rest on basket rim, then wrap and slip cords back through same holes to secure.
- 3. Measure 12 inches again and attach small basket in same manner.
- 4. Screw cup hook to wall at desired height.
- 5. Loosely tie all cords together near ends and loop over cup hook. Adjust knot so baskets lie flat on wall (front cords will be longer than back; you may need to adjust small corner knots slightly). When correct angle is achieved, tie all cords together near ends. Trim excess cord; hang baskets on hook.

Create a Handy Storage System by Your Back Door http://www.bhg.com/home-improvement/storage/installation/easystorage-project-customized-entryway-mini-mudroom/

Is your entry a mess? Are you tired of stepping on backpacks on your way to the garage? Does your family need an organized place to store outerwear, purses, and keys? Then this entryway storage system is for you -- no separate mudroom required! You'll only need an afternoon to re-create this assortment of storage solutions by your back door.



Steps 1, 2, and 3: Preparing the Wall Surface

- 1. Cover a 3-x-3-foot area on the lower portion of the wall with 12-x-24-inch cork tiles. Finish off the top edge of the cork by mounting a 1x6 board to the wall.
- 2. Above the board, cover the wall with a beaded-board panel, if desired. esteader. Weebly. com
- 3. Paint board and panel as desired. Let dry.



Steps 4, 5, and 6: Add Drawers and Hanging Storage

- 4. Use screws to attach a purchased chrome or stainless-steel storage rail (also called a mounting strip) to the board. The rail shown here measures 31 1/2 inches long.
- 5. For additional storage, secure a wall shelf with drawers low enough on the wall, just above the metal rod, that your children can easily see inside the drawers to retrieve belongings.
- 6. About 15 inches above the drawers, secure another 31-1/2-inch storage rail, which is the right height for adults to use.

#### **Detail of Drawers**

Drawers aren't just for kids. Use handy storage drawers to store your cell phone, loose change, and other can't-livewithout items.



Step 7: Complete the Wall System

**7.** Slip S hooks over each rod for hanging backpacks, keys, and other items. You can also purchase additional storage pieces that are designed to hang from the rod, such as a metal shelf or caddy.





# Do it Yourself Closet Organization Solutions Under \$20 from

http://www.associatedcontent.com/article/1525279/do\_it\_yourself\_closet\_organization.html

Published March 05, 2009 by: Jenne Joy

\*\*\* Quite a few of these suggestions can be made yourself so put your MacGyver cap on.

# Don't Let Your Clothes Run Rampant and Wrinkled Any Longer!

Spring is just around the corner, and it's time for you to get up and pick up. One area that's probably desperately in need of cleaning is your closet. Organizing your closet now will help keep it cleaner for the months to come and perhaps even help you keep it clean, permanently! Less cleaning equals more time in the summer sun! Here are some tips, tricks and great solutions for organizing your closet on a budget.

#### **Solutions for Shoes**

Hang your shoes on the back of your closet door using this handy storage solution. It will hold 12 pairs of shoes and help you save your patent leather pumps. Plus, at \$13.99 it's a great deal and it will also help you extend the life of your shoes.



# **Double your Hanging Space**

For 11.99, you can double your hanging space with this hanging bar. Simply attach it to your upper closet bar and voila you've doubled your storage! The natural wood and chrome design makes it easy to instantly install with no special \*\* I've done this myself with wooden dowels, S hooks and chain or rope.



# **Folded Clothes and Miscellaneous Storage**

No room for a dresser? Not enough space on the shelves? Try one of these solutions:

It doesn't get any better than \$6.99 - and these stackable baskets prove just that. The clear basket provides space to store hats or scarves, ties or belts, or shirts, pants and bulky sweaters. Now they'll take up less space on your shelves! Available through StacksAndStacks.com.



This hanging canvas organizer will quickly and easily help you put away several sweaters, shirts or pants and keep them wrinkle free. For only 12.99 at StacksAndStacks.com, it's a steal. nHomesteader: Weehly.com

\*\* I've made this myself with old jeans and heavy duty hangers.



# **Undergarments Galore**

If you need a place to store things like socks, pantyhose and various other undergarments, then try these simple solutions:

Get a pantyhose organizer - pantyhose is annoying already; don't make it worse by letting them overrun your closet space. This transparent organizer lets you see each individual color, helping you find the right pair - and it keeps them from creating a mess on the floor. \$12.99 through StacksandStacks.com



# For the Man in your Life

He's got ties. There are ties on your shoes, hanging over your shirts, throw into corners, there are just ties everywhere! Help him get his tie situation under control with this tie organizer. It's only \$8.49 so you can buy two and get his ties under control.

\*\* Take a long S hook and some wooden dowels cut to size and you have made your own hanging tie rack. I did this to hang my belts.





These are just a few of the many, many options available for closet organization and storage. When you're working with a budget, remember that buying cheaper items from separate sites will add up in shipping costs. Plus, many sites offer free shipping based on your number of items or the amount you've spent on their site. You'll be sure to save money and get organized with these tips and tricks.



Underbed storage, some even come with little wheels.



Good closet storage – I prefer Space Bags, cheaper too



Great Pantry storage – I've made this from burlap that was on sale at the fabric

store. Simple, easy and space saving. Great in the garage for hammers screwdrivers and the like too. In one closet I have store my crafts items in it. All either hanging on a wall, in a closet (with heavy duty hangers) or on the back of doors.



Stackable containers with wheels



himself using pipes.

For the garage and garden shed – A neighbor made one of these things

VUrbanHomesteader: Weebly.com



Place these on a rolling platform made from pallets

# **Notes & Tips on Off-the-Shelf Storage Items**

**Tips on Totes, Tubs & Storage Boxes** from <a href="http://www.homedepot.com/Buying-Guide-Totes-Tubs-Storage-Boxes/h d1/NCC-1701/h d2/ContentView?pn=Totes Tubs Storage Boxes&storeId=10051&langId=-1&catalogId=10053</a>

Keep stored items organized and protected with the right containers...

Looking for a place to store that extra set of dishes, collection of baseball cards or last season's clothing? Perhaps you just need a place to put your holiday decorations. Whether you want to hang on to something because it has sentimental value or because it just might come in handy when you least expect it, storage bins and boxes offer an excellent solution. Choose from totes, tubs, boxes, bins and other storage devices to help reduce clutter and organize items so you can find what you're looking for faster. Start by taking an inventory of what you need to store, how big the

objects are and what type of storage space is available. Use the following questions to help find the right match for all your needs:

- What types of storage devices are available?
- Will you need colored or clear bins?
- What types of items do you wish to store?
- How often will you need to access them?
- Are there any special features you'd like to have?

## Bins, Boxes, Shelves, Totes and Tubs

Toys, sports equipment, toiletries, pet food, garden supplies, office material, photos, books and more can all be easily stored and organized with the help of the right containers. Small boxes with multiple compartments are perfect for storing sewing or craft materials while large crates provide plenty of storage space for old clothes or bulky, oddly shaped items. Choose from a variety of solid colors or utilize a clear plastic container so that you can instantly identify what's inside without having to open it. Keep in mind the weight of objects you plan to store. If they're heavy, you'll need to look for reinforced containers that can handle the load.

**Bins:** Bins come in all different sizes, designs and colors for maximum versatility. Whether you're storing a couple of pairs of shoes or all your holiday decorations, you'll be able to find the ideal size. Choose multiple bins of the same color to store your old dishes, and then choose a different color for holding photos and keepsakes. Bins with rollers on the bottom are easy to move around, particularly if you're storing them in a basement or garage with a concrete or hard floor surface. The chart below will help you learn more about the different bin designs available and some of the benefits of each.

Bin Type	Description	Benefits and Uses	
Attached Lid	Features a hinged lid that opens and closes.	<ul> <li>Provides protection and keeps out dust</li> <li>Comes in multiple sizes for a range of applications</li> </ul>	
Bottom Hinged	Features a top lid and hinges on the bottom that allow items to be removed from the top or bottom.	<ul> <li>Provides convenient access from two directions</li> <li>Useful for storing heavy objects</li> </ul>	
Multiple Drawers	Features several sliding drawers.	<ul> <li>Provides storage space for a number of items</li> <li>Perfect for craft or hobby storage</li> </ul>	
Nestable	A group of different-sized bins that can fit inside one another.	<ul> <li>Provides multiple storage bins</li> <li>Takes up less space when not in use</li> </ul>	
Stackable	Designed to be used in conjunction with other bins by allowing for vertical stacking.	<ul> <li>Allows for more efficient use of space</li> <li>Comes in multiple sizes for a range of applications</li> <li>May lock into place with other containers</li> </ul>	

Under Bed	Features a long, shallow body designed for storing underneath beds and other furniture.	•	Allows for more efficient use of space Ideal for storing out-of-season clothing, shoes and accessories
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**Boxes and Shelves:** Corrugated cardboard boxes come in an immense range of sizes and are easy to assemble. While you won't want to use them in areas that are susceptible to dampness, they are perfect for moving or storing items in clean, dry locations. If you're using them to transport items during a move, you may want to pick up a tape gun to make sealing them quick and easy. Acid-free boxes are ideal for storing delicate linens over long periods of time. Make sure to label or mark boxes so that you don't always have to open them up to know what's inside. Shelves provide ample storage space for boxes and other items. Some can be anchored to a wall while others can be assembled to various heights depending on how much room you need.

- If you need many boxes, purchase unassembled ones for easier transport
- Boxes can be broken down when not in use for easier storage
- Boxes with dividers make it easier to store small items without getting them mixed up
- Use wooden or wire racks to increase storage space in kitchens
- Use plastic boxes in areas where moisture or water damage may occur

**Totes, Tubs and More:** Totes are ideal tools for both storage and transportation. Because they're made of soft materials, they're easy to store and won't scratch or dent surfaces they bump up against. Baskets also provide an easy-to-transport storage solution while also serving to enhance and complement the décor of a room. Use them to hold soaps and other toiletries in the bathroom or magazines in your living room. Baskets are made from a range of materials, including plastic, bamboo, willow, wrought iron, canvas, coir and more.

- Tubs come in different sizes and can be easily transported if they feature handles
- Buckets are available in many different sizes and can be used for transporting or storing both solid objects and liquids
- Drums can be used to hold large amounts of food, water and other materials
- Chests and trunks provide ample storage room and can be used for decorative purposes as well

#### **Features**

**Label Maker:** Once you've got everything stored, the last thing you want to do is open every box in the basement when you're looking for something in particular. Pick up a label maker to clearly identify what each container has inside.

**Nonslip Shelf Liners:** When you're storing items on shelves, you want to make sure they stay in their place. If the shelves are slightly uneven, boxes can slide off, causing small items to break and heavy objects to injure anyone standing nearby at the time. Nonslip shelf liners help alleviate this danger by providing traction for boxes to keep them in place.

**Chloride Pellets and Cedar Blocks:** Damp basements can wreak havoc on boxes and other storage devices. Chloride pellets, which are both odorless and nontoxic, absorb excess moisture to help keep boxes dryer. Cedar blocks will prevent moths from damaging clothes you want to store.

**Name-Card Holders:** If you choose not to get a label maker, look for boxes and bins that feature slots for inserting a name card.

Additional storage tips from <a href="http://www.showmomthemoney.com/10-home-storage-solutions-that-combine-flair-with-">http://www.showmomthemoney.com/10-home-storage-solutions-that-combine-flair-with-</a>

If just piling up your stuff on bookshelves is not your idea of organizing, I hear ya! It just doesn't look nice to see all that clutter, even if it is stacked neatly. I want my organized home to be pretty, don't you?

Well, we're in luck! Any trip to a large outlet or hobby store will have your head spinning with ideas of how to create pretty and practical storage solutions for your home. There are well designed storage solutions to fit any taste in home decor. Let's look at just a few.

#### 1 - Baskets

Baskets in every conceivable size, color, and style are always a popular choice when it comes to decorating with your storage solutions. Natural wood baskets are perfect for a warm, down-home country look, and work very well in the kitchen. Brightly painted and fabric-lined baskets are an excellent choice for children's rooms, bathrooms, and the home office. They give a nice lift to your day, seeing all those nice colors and patterns. The fabric-lined baskets in particular are good choices for storing smaller items, such as barrettes and jewelry, or even office supplies or makeup.

If you have a serious collection of paperback books, you may not want them to fill your bookshelves. With one or two larger baskets, you could actually stack the paperbacks inside, making room on your bookshelves and cleaning up the appearance at the same time. As I've said, sometimes just putting things neatly in a pile or row doesn't make the clutter disappear. Especially when those items are numerous and small. The eye may still see clutter even if a collection is neatly lined up.

#### 2 - Caddies

Caddies are great for things that may need to travel from room to room. They can be found in all sorts of styles, from nice looking colorful plastic buckets to fabric caddies that have multiple pockets and can be folded and hung on the wall when not needed. Look in unusual places in the big stores for picnic baskets or silverware caddies and consider giving those items a new purpose. Silverware caddies are especially nice to store art supplies in, like paint brushes, pencils, and markers.

You can find shower supply caddies, popular with college students living in dorms, in the make-up area of the big stores. They are sturdy and usually very colorful. Think about other purposes for these handy caddies, like carrying your craft supplies to your work area. They are also fantastic for little board game pieces that keep getting lost in the boxes. Just write what game each section of the caddy is for, and take it along to the game table when you grab the board game.

#### 3 - Decorative Boxes

Covered wooden or cardboard boxes, like hat boxes, are making a real splash these days. Visit any larger hobby store, and you'll find acres and acres of beautifully decoupaged, fabric covered, or painted boxes to get you fired up to organize. These boxes come in all sorts of styles and sizes so you'll never run out of choices. Round, square, rectangular, octagonal... you'll have trouble deciding. You'll find styles to use in your office, bedroom, and the kids' rooms.

The matching covered boxes that come in three or four different sizes serve a couple purposes. You can store odds and ends inside, then stack the boxes to create height and interest in your bookcases or on your table tops. If the covered boxes are large enough and sturdy enough, you may even be able to create a side table with the stack. Now you're creating storage galore!

#### 4 - Desk Organizers

Desk organizers come in so many varieties and styles it's hard to choose which one to buy. You can purchase sets made specifically for items you keep handy on your desktop, or you create unusual storage pieces by selecting an assortment of baskets or decorative boxes. Don't forget to get a nice looking trash can, too. Everything in and around your desk needs an attractive home... even your trash.

You'll want, at a minimum, a pretty pencil cup, trays for sorting important paperwork, covered storage for odds and ends that aren't very attractive, and a simple paperclip holder. A little heads up here... if you have school age children, you may be receiving several of these items for Mother's Day or Father's Day – typically covered in glittery gold painted macaroni. Save room for these special pieces.

#### 5 - Furniture Pieces

Furniture with the bonus of extra storage is very practical and often very attractive. A simple side table with drawers can really corral clutter while offering another decorative display option on the surface. When room is limited, you'll appreciate some of the more inventive furniture pieces like sofas and beds that have drawers built into the bases. These pieces really offer a tremendous amount of storage for lesser used items like out of season clothes and extra pillows and blankets.

Coffee tables that have large drawers or are built with a hinged top offer the best storage for an active family that likes to have board games, books, magazines, or card games ready and waiting right close by. Consider for another storage option, a bedroom dresser that is recycled into the living area. It can serve as a buffet or music center, or even a television stand. Look at all the storage a simple six drawer dresser could offer in a family room.

# 6 – Media Storage

Video and audio storage that is as attractive as it is useful is becoming a more and more popular option. Gone are the ugly wire contraptions that get bent and look bad in a short amount of time. Now you can find wonderfully crafted pieces intended to look nice as well as store your collections of music and videos. There are full-blown media centers for the home, or you can find stand-alone pieces that mix and match well with any decor. There are even some storage solutions designed to look like antique pieces of furniture.

You don't have to spend a lot of money on audio and video storage. Use your imagination and creative talents to put old furniture to use in new ways. Visit your second-hand furniture stores and you will find a variety of mismatched furniture pieces that can be re-created into new storage pieces. Sometimes, re-creating old furniture pieces to create a new storage piece is the perfect solution for odd sized elements like video and audio collections. Attach narrow shelves to the inside of drawers discarded from cabinets, paint them up nice, attach them to a wall, and you have a storage solution that's perfect for your pile of cds. Look at the possibilities when you start searching through available pieces of cast-off furniture.

# 7 - Carts

Carts with wheels are not just for kitchen use any more. You'll find many uses for these handy storage solutions. They now come in so many styles that you'll be looking for places to use them all over your home. From the simplest metal cart, to the larger more decorative wooden or stainless steel carts, you'll be able to find one that fits anywhere you need one in your house. If you don't need to get at your cart all the time, they can be rolled into a closet, pantry or corner. The extra work space is perfect for the kitchen, but may also be the best solution to your hobby space, as well.

As for your outdoor living area, a rolling cart is the perfect solution for hauling food and drinks outside, serving, and gathering up the dishes from your patio to take them back inside. You may also find a cart the perfect solution for your

yard work. There are specially designed weather-resistant carts made for hauling your tools around the yard, then rolling them all back into hiding when you're done for the day. This is also a great idea for moving the kids' toys in and out of view. Consider using a cart for your gardening and planting projects, too. Now you see it, now you don't!

# 8 - Closet Organizers

Closet organizers are becoming big business, with many companies dedicated to helping you design the perfect closet organizer for your home. You can hire a professional designer or draw up your own closet organization plan. The big stores make it easy to choose from a variety of systems available, most quite easy to install yourself. They can be as simple as plastic or metal adjustable shelves, or as complicated as custom-fit wood cabinets just for your closet. The idea is to make them so user-friendly that you'll never see a wayward piece of clothing cluttering up your pretty house again!

Along with your closet organizing system, shoe storage is something no family should be without. Who doesn't get tired of tripping over shoes or not being able to find a shoe's mate as you are getting ready to head out the door? There are many styles available, from shoe racks that are built into your closet organizing system, to simple back-of-the door bags. Either way, a shoe organizer helps clear that clutter we all hate to see, or stumble over.

#### 9 - Hall Trees

Clothes trees or hall trees can add an old-fashioned flair to your entry way or bedroom. You can choose a traditional wooden style with the big, brass hooks, or you may want a more stylized, modern version. There are big mirrored hall trees with hooks and built-in storage underneath a hinged seat. There are styles with cubbies for baskets to hold all that discarded outdoor gear like mittens and scarfs. There are some with nice umbrella stands attached, as well.

Hall trees are most often thought of as a way to gather up over-coats and hats in an entryway, but consider some other uses, too. In the bedrooms they make a great way for kids to keep their pajamas and robes attractively draped on hooks instead of ending up unattractively crumpled on the floor in the morning. Also, don't discount the decorative value of a little hall tree in a room displaying old straw hats or pretty purses. Either way, a nice hall tree can be practical as well as decorative.

# 10 - Jewelry Boxes

Jewelry boxes have long been the most desirable way to store your precious pieces of jewelry. You don't want an unsightly, and sadly tangled, pile of jewelry on top of your dresser. There are many beautiful jewelry boxes to be found. You can find jewelry boxes that are almost as beautiful to look at as your jewelry, some that are hand-carved and some with detailed wood inlay. Or, you may opt for a more modern look. You'll find glass jewelry boxes to display your collection, as well as art deco fashioned boxes, or leather-embossed ones that make a statement while sitting there doing their job on top of your dresser.

Displaying some of your jewelry pieces from a wall-hung jewelry board is one way to keep the tangle at a minimum, while keeping your jewelry attractively displayed. You can easily build this method for storing your jewelry with just a pretty piece of decorative wood and some small cup hooks. No matter what you make, it will be prettier than letting your jewelry get shoved to a corner of your dresser drawer, becoming forever entangled.

No matter where your taste lies when it comes to decorating your home, it's easy to find great storage solution ideas that not only add to your home's flair, but also to its function!

As you try to declutter your home while keeping your rooms attractively decorated, come back and visit again for even more ideas to help you along the way. We want to be your support while you declutter your home and life!

**HGTV** also has some great organization and storage ideas at <a href="http://www.hgtv.com/organizing-and-storage/package/index.html">http://www.hgtv.com/organizing-and-storage/package/index.html</a> From pantry to linen closet to garage – take your pick.

Great Doc on DIY Firearm Storage <a href="http://www.scribd.com/doc/14860366/Making-your-own-Desiccant-Packs-for-longterm-firearm-storage">http://www.scribd.com/doc/14860366/Making-your-own-Desiccant-Packs-for-longterm-firearm-storage</a>

# Life is "trying things to see if they work." Ray Bradbury

Visit Oasis Design for DIY water storage solutions at http://www.oasisdesign.net/water/storage/

# **Water Storage**

Tanks, Cisterns, Aquifers, and Ponds
For Domestic Supply, Fire and Emergency Use
Includes How to Make Ferrocement Water Tanks

**Summary:** A do-it-yourself guide to designing, building, and maintaining your water tank, cistern or pond, and sustainably managing groundwater storage. It will help you with your independent water system, fire protection, and disaster preparedness, at low cost and using principles of ecological design. Includes building instructions for several styles of ferrocement water tanks.

Art Ludwig

Make Your Own Wall Storage Boxes <a href="http://realliving.ninemsn.com.au/article.aspx?id=74664">http://realliving.ninemsn.com.au/article.aspx?id=74664</a>

\*\* Ok, ok – remember imagination. Think in the garage with tools, canned goods or whatever needs to be stored. These can be placed between wall studs if the garage is unfinished too.

Making the cute wall-mounted boxes from our "Storage sorted!" story on (page 48 of our Jan-Feb issue) is a little more involved than popping in to Howards Storage World and buying ready-made versions, but if you're game, here's what to do.



#### What you'll need

MDF (medium density fibreboard)
Packet of 6mm self-capping screws (you will need 16 screws for every storage box you will make).
90-degree mitre clamp (optional but useful)
Electric or cordless drill
Woodworking glue
Clear wood lacquer
Acrylic paint in colour of your choice

## buying your materials

We bought 20mm MDF but you would need to make sure that your wall is strong enough to hold a weight like this. Or you could make it out of 10mm MDF. (Our boxes using 20mm MDF weighed 3kg each.) When purchasing your MDF ask the hardware or timber store if they will cut it for you — most of them will do it. Each box needs 4 pieces cut to a size of 300mm x 300mm and 1 piece to cut to a size of 265mm x 265mm. (If the hardware store can't do it for you, you'll need to carefully mark the measurements using an angle ruler to get perfect 90-degree corners. Then you'll need to use a drop saw and carefully cut the pieces. Be as accurate as possible or the box won't fit together properly.)

#### to assemble ...

- 1. Take two of the 300mm x 300mm MDF panels. Drill two holes at the edges of the opposite sides of these boards. Through these holes you will place screws that go into the short edges of the other board to make a right angle. Hold them steady, either by hand or using a 90-degree mitre clamp. Drill through the holes into the short edge of the other board, then put the screws in. You should now have an L shape. Repeat on next side to make a U shape.
- 2. Repeat the drilling process for the one remaining 300mm x 300mm MDF panel, then screw it on. You should now have a box shape but without the base.
- 3. Take the 265mm x 265mm MDF panel. Apply a good-quality woodworking glue (such as PVA glue) to the edges of this panel and gently ease the panel into place on one end of the box. Make sure the edges are aligned with the edges of the 300mm x 300mm panels and leave to dry.
- 4. Paint the outside of the box with a clear wood lacquer. When dry, paint the inside of the box with acrylic paint. This kind of paint is self-priming and quick to dry and makes cleaning the box easy.

We don't recommend you mount these boxes on a gyprock wall — the boxes will be too heavy for the wall. Brick or rendered walls are fine — install the boxes in the usual way using masonry screws and plugs.

# **Make Your Own Etched Glass Storage Jars**

http://www.lifehacker.com.au/2009/03/make your own etched glass storage jars-2/

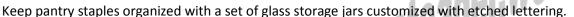
Fix By Jason Fitzpatrick on March 30, 2009 at 9:15 AM

A little etching cream and some stickers is all it takes to create customised storage jars. At MarthaStewart.com, they have a simple guide to using glass etching cream for creating labels on glass storage jars. You'll likely need to make a trip to the craft store, but the materials they use are inexpensive. A bottle of glass etching cream will run you around \$10, along with some stick-on vinyl letters to create the actual text on the label. Other than that, some masking tape and a

very small paint brush get this project done, and leave you with some solid de-cluttering weapons. For detailed instructions and a caution or two—don't use etching cream near a porcelain sink!—check out the full tutorial at <a href="http://www.marthastewart.com/goodthings/etched-glass-storage-">http://www.marthastewart.com/goodthings/etched-glass-storage-</a>

jars?lnc=3fae62af4e2ee010VgnVCM1000003d370a0aRCRD&rsc=taxonomylist home organizing-kitchens





1. Clean and dry the glass. Using painter's tape, mark off the area you want to etch. Attach vinyl stick-on letters and decorative tape; press hard to ensure they are attached firmly.

TCrazyla

- 2. Cover work surfaces (be sure to work in a well-ventilated area). Put on protective gloves and an old shirt with long sleeves. Paint an even layer of etching cream onto glass. Let stand for amount of time indicated by manufacturer's instructions.
- 3. Rinse with warm water in a stainless steel sink. (Avoid porcelain sinks; the cream damages glazed surfaces.) Remove letters and tape.



Hardware Kits let users make their own rolling ladder from <a href="http://news.thomasnet.com/fullstory/541026">http://news.thomasnet.com/fullstory/541026</a>

\*\* My friend made me two of these as a gift. He didn't use the kit. I use them in my garage.

March 4, 2008 - Offered in 3 types, Hardware Kits feature quiet rollers and non-marring wheels. Kit contains 2 bottom rollers, 2 rolling top guides, 7 rung support rods for steps, fasteners, and instructions. Track kit includes 1 in. dia x 8 ft powder-coated black aluminum track, 2 end stops, support brackets and screws, and steel support dowels. Available in 8, 9, or 10 ft length, which user cuts to desired height, wood ladder kit offers choice of red oak, maple, or cherry wood ladders.





http://www.rockler.com/articles/display article.cfm?story id=14

**Build Your Own Entertainment Center** 

Whether you're storing CDs, housing a satellite television system, or showing off your stereo equipment, Rockler's <a href="Home Entertainment Center Plan #52232">Home Entertainment Center Plan #52232</a> (http://www.rockler.com/product.cfm?&page=873)can be customized with tailor-made accessories to help you build your very own home entertainment center. Rockler's other unique products can add the necessary touches to help you design and create the entertainment center of your dreams.

# Planning and Preparation

Before you get started, consider your home entertainment preferences. What kind of components do you own and want to display? Start your project by making a list of your storage requirements, and what type of merchandise you plan to keep at hand for your entertainment pleasure. Devise an Organized Entertainment System

- Flipper Door or Sliding Door System (http://www.rockler.com/product.cfm?&page=33) if you like to keep electronic equipment hidden. Hidden Link system (http://www.rockler.com/product.cfm?&page=2264) will let you keep your components neat and tidy behind wood doors and keep them functional in the process. A TV pullout (http://www.rockler.com/product.cfm?&page=22) provides for easy-out watching at any angle with the convenience of hidden or recessed storage when the TV is put away. Our JIG IT® shelving (http://www.rockler.com/product.cfm?&page=893) jig will help you configure the right space with perfectly centered shelf pin holes. Shelf Pins (http://www.rockler.com/CategoryView.cfm?Cat ID=173) so that you can adjust your shelving as you upgrade your entertainment system. Media Holders (http://www.rockler.com/CategoryView.cfm?Cat ID=198) give you storage options for your CDs, DVDs, and VHS tapes and can be customized to fit any space you invent. Glass Door Hardware (http://www.rockler.com/CategoryView.cfm?Cat ID=32) to show off your treasured collectibles for a behind-the-glass showcase look.
- Glass Door Locks (http://www.rockler.com/product.cfm?&page=10774) for safekeeping and security.

#### **Be Creative**

Think about your special belongings like games, needlework, your remote control or other possessions. Drawers can be customized into any shape, size or weight rating with our smooth gliding <u>Accuride Drawer Slides</u>

(http://www.rockler.com/product.cfm?&page=1499). Rockler also has all the Cabinet Lighting

(http://www.rockler.com/CategoryView.cfm?Cat\_ID=71), <u>Cord Management</u>

(http://www.rockler.com/CategoryView.cfm?Cat\_ID=199), Cabinet Hinges

(http://www.rockler.com/CategoryView.cfm?Cat\_ID=46), Casters, Glides

(<u>http://www.rockler.com/CategoryView.cfm?Cat\_ID=590</u>) and other Hardware needs necessary to help you create your customized Home Entertainment Center.

See more ideas on creating your very own <u>home entertainment center</u> (http://www.rockler.com/project/entertainment.cfm?).

# Get a head start on summer gardening with a collapsible greenhouse

http://canadianhomeworkshop.com/index.php?ci\_id=2734&la\_id=1&page=2
By Don Ross Photography by Roger Yip, Illustration by Len Churchill

\*\*\* This I have made and it is fantastic!!!! Now imagine this with plywood sides and non-collapsible, humm – storage!



Close the gap between the seed cataloge and the first shovelful of soil with this attractive, space-saving greenhouse

Like a great vacation, gardening actually starts with anticipation, well before the Canadian climate permits. You can close the gap between the seed catalogue and that first jab of a shovel into soil if you nurture those seeds yourself with a vertical cold frame (or starting greenhouse).

My design can be collapsed and stored after its seasonal work is done, leaving more room for the garden itself. The greenhouse is built of western red cedar; while this wood is pricey, it's lightweight, warp-resistant and attractive without paint. For durability, exterior-grade screws and nails, stainless-steel staples and outdoor-rated hinges are a must.

**Download the collapsible greenhouse plans here** http://images.transcontinentalmedia.com/CHW/Illustrations/greenhouse-plans.pdf

# Download the printable materials list for the greenhouse here

http://images.transcontinentalmedia.com/CHW/Illustrations/greenhouse-materials.pdf

# Time to grow

This project is made entirely out of plastic-covered frames made with 2x2 and 2x8 lumber. Lay out the parts for each panel in your workshop, then use your carpenter's square to ensure each panel is true as it comes together.

At each aligned corner, drill and countersink for #8 x 31/2" deck screws. Hold the joints together tightly and drive the screws, being careful not to strip the holes by over tightening. Note in the plans that the end panels need extra crosspieces, placed at intervals to support the shelves.

Lumber retailers sell heavy, 6-mil polyethylene vapour barrier by the foot, and it's perfect for sheathing the panels. (Don't worry about the text written on the plastic. It rubs off with a little Varsol.) For easier handling, cut a piece of the plastic several inches wider than the width of the panel you're working on. Lay the plastic across the panel frame with the factory-cut straightedge on a long side. Load your stapler with 3/8" stainless- steel staples (necessary for preventing ugly rust stains), then get ready to think like an upholsterer.

Align the poly sheet and staple the down first corner. Pull the straight edge tight, being careful not to tear the plastic off. Staple the second corner, then staple the rest of that side at 2" intervals. Move to the opposite end and pull the corners taut. Before you staple, check again that the frame is still square. Chances are it will be; the plastic sheeting does a remarkably good job of keeping the wood just the way it is.

Pull the centre of the end you're working on tight, then staple again at 2" intervals. Repeat the process on the other two sides. Use a sharp blade to cut off the excess. Leave about 1/2" excess around the outside edges of the frame.

# Open door policy

The doors are simply panels themselves, sheeted with poly in the same way as the other frames. They form the entire front face of the greenhouse. And while the doors do add some strength, battens over the edges of the plastic sheeting and staples protect the seams and enhance appearance. While you could choose to cut battens from red cedar lumber, then sand and round all of those edges, I took a slightly more expensive shortcut and purchased pine batten mouldings instead. I opted to protect this wood with a penetrating outdoor stain in a red cedar colour.

Centre the battens on the frame, set in 1/4" from the outside edge, along the frame's inside. I also cut the ends of the battens at a 45° angle for a tidy, mitred fit. Use 11/4" hot-dipped galvanized or stainless-steel finishing nails to apply the battens. Anything less will lead to ugly rust stains over time.

Two of the battens involve door hinges, so they need extra preparation before assembly. While the hinges could be recessed into the frame members, it really isn't necessary to go through the trouble. It's easiest to cut a recess for the hinges into the back of the battens. I used a mitre saw for this, with the blade depth set to match the width of hinge thickness.

# Tip top

The top of the greenhouse needs to shed rain. I designed a cambered, wing-like profile to create the essential slope, while leaving the front, back and end panels the same height and with square corners—a much easier building job.

The ends of the top are best cut from a length of 2x8 red cedar. The longitudinal frame members are 2x2 red cedar, just like the rest of the frame. For no other reason than aesthetics, I cut a leaf pattern through the end pieces. Beauty is also why I used 4"-long galvanized finishing nails rather than the ubiquitous and all too obvious deck screws to hold everything together. Predrill holes slightly smaller than the nail itself to avoid splitting the cedar. The centre frame piece must be notched to accommodate the 2x2 stringers, and these are best fastened with the 31/2" deck screws for maximum strength. No one will see them anyway. As with all other frame members, use

your carpenter's square to be sure the top comes together with 90° corners.

The entire top frame is a little wider than the rest of the structure to shed rain. To continue the flow of the curved top, I wrapped the poly around a piece of pine quarter round, and nailed it with 15/8" galvanized nails to the front edge of the top. This arrangement adds something to the drip edge and means a batten isn't needed to protect that area of the plastic. With the quarter round in place, stretch the poly over the top and staple it along the lower back edge of the drip edge.

At this stage, leave the plastic larger than necessary all around the top for a good grip. The idea is to pull the sheet as taut as possible, back to front and end to end. A tight membrane keeps the roof frame strong and allows water to shed completely. Just be sure to round the top edge of the back stringer and the upper back corners of the end pieces smoothly before you put on the plastic. Sharp corners will puncture the poly. Finish up by reinforcing all stapled edges with more wooden battens.

The wall panels of this greenhouse are held together by hinges that have removable pins so the structure comes apart for off-season storage. Install the hinges on a large, flat surface. Tap out the hinge pins before assembly, anchor the

hinge plates with screws, then apply a little white lithium grease to the pins before putting them almost all the way back in. This strategy makes it easier to remove the hinge pins at the season's end.

With the frame of the structure together, you can easily add the other pieces. The positioning of the shelf support pieces on the end panels and on the centre supports of the unit is arbitrary. You can put them anywhere you like, or add more shelves if you wish. The end supports are permanent. The centre supports, on the other hand, are removable to allow for seasonal storage, and sit atop blocks affixed to the back and front central vertical frame members. The blocks are positioned so that when the cross supports are placed on them, the end and central supports are at the same level. This set-up is key. Dowels keep the centre supports in place.

The inside front-to-back distance is 221/4", and this becomes the length of the central horizontal pieces. Drill a 1/4"-diameter hole, 1" deep and 3/4" in from the ends of the underside of each cross support. Tap a 2" length of hardwood dowel into each of these holes. Next, drill a 5/16"-diameter hole at least 1" deep into the top centre of each support block, before these are mounted with screws to the vertical members. The pegged cross supports in the blocks add more strength to the structure as a whole; they also support the shelves.



While you could place stop strips all around the inside of the door frame, it isn't necessary with a structure such as this. All you really need is a single strip along the vertical member at the front of the house. The strip stops the doors from swinging inward as they close. Saw a 6' length of 2x4 cedar vertically with your tablesaw—first along one edge, then along the other—making a piece of wood 5/8" thick and 31/2" wide. The remainder of this board is destined for shelf slats. A few passes through a thickness planer makes both faces smooth. Refine the edges of the stop strip with a 1/4"-diameter roundover bit in a router so your sleeves won't get caught as you work your green thumbs inside the greenhouse. Use countersunk 11/4"-long deck screws to anchor the stop strip on the inside of the front vertical member.

My plans call for four levels of shelves in all. For easier handling and more versatility, each shelf level actually includes two shelves side by side. The entire greenhouse measures 73" wide across the inside, while each shelf is 36" long. The extra 1" in width is clearance that makes the job of placing the shelves that much easier.

Each shelf is 191/4" wide and is designed to sit upon the end and central supports. Cut the slats from the 2x4 red cedar

lumber. With 1" space between each slat, each shelf needs eight slats, for a total of 64 pieces. Pass all slats through a planer for finishing one side and for uniform thickness.

The cleats for the undersides of the shelves are 191/4" long, and made the same way as the slats. Mount these at least 1" in from the ends of the underside of the shelves, with 11/4" deck screws drilled and countersunk as before.

Two very simple wooden prop rods both serve to lift the hinged top for ventilation and to hold it closed on windy days or cool nights. I used a 13"-long x 11/2"-wide x 3/8"-thick strip of red cedar for the prop rods. To make the roof opening adjustable, I bored 5/16"-diameter holes through these prop rods at 1", 43/4" and 12" from one end. A #12 x 11/2" pan-head screw driven



into the top frame makes a great pivot point for the top ends of both prop rods.

With the prop rods hanging down under their own weight, mark the locations of the middle holes with a pencil on the wall frames. Drill 1/4"-diameter dowel holes, 1" deep in these locations. Tap a 13/4" length of 1/4"-diameter hardwood dowel into each hole to hold the roof closed when its engaged with the middle hole on the prop rod. When you want to hold the roof open, engage the lower prop rod holes with these dowels.

#### Little extras

Catches, latches and handles for the two doors can be as simple or as fancy as you'd like to make them. I used very basic, homemade wooden pivoting latches, one near the top and the other near the bottom of the doors. The two locations ensure that the twist-prone doors close tightly on frosty nights.

Any greenhouse made in this manner is going to be light in weight and easily blown over by the wind. I included a provision for weighting the bottom of the house that also functions as a heat sink for getting through cool spring nights. You can install 2x4s along the bottom of the structure for this purpose.

Scrounge six or seven 10-litre rectangular water containers, available at the grocery store, fill them with water and lay them down on the bottom stringers. Their weight adds stability and the thermal mass of the water evens out temperatures from day to night.

For a long, rot-free working life, consider placing your greenhouse on a slightly elevated bed of crushed stone. It keeps the wood away from earth made soggy by rain and regular watering.

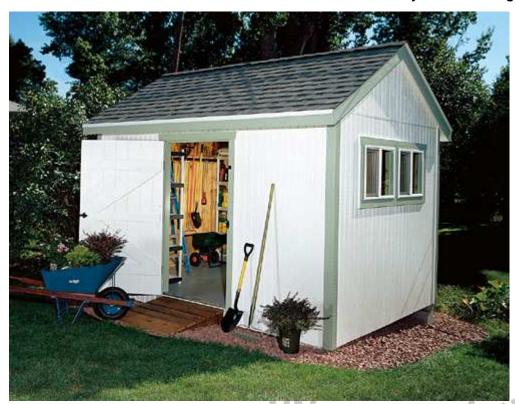
With seed catalogues bulking up your mailbox, a greenhouse is a quick and easy way to get a head start the gardening season.

# **Build Your Own Garden Shed From PM Plans**

http://www.popularmechanics.com/home journal/home improvement/1276536.html

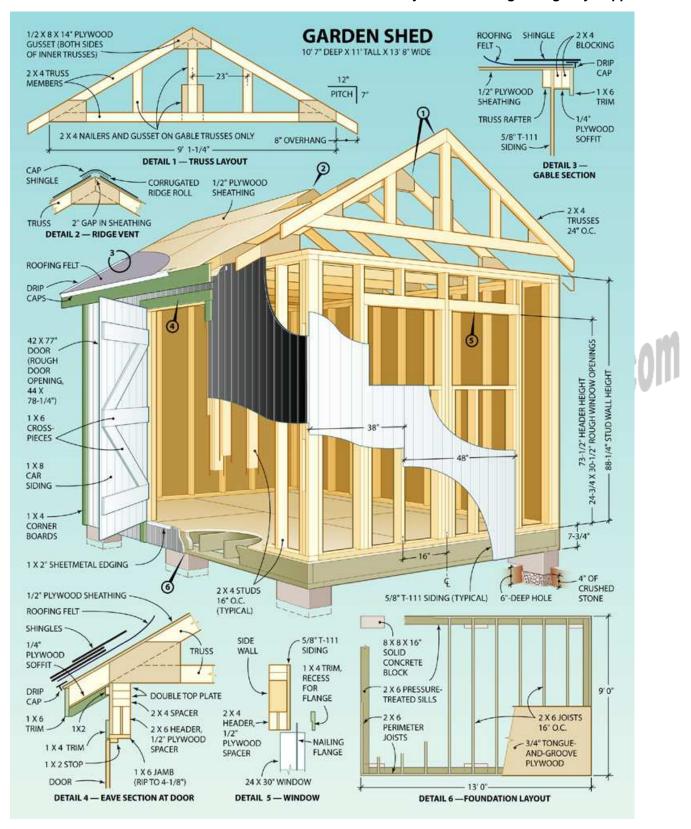
# A spacious storage shed that anyone can build.

TEXT AND PHOTOS BY MERLE HENKENIUS Published in the March 2004 issue.



If you're like most homeowners, you know that there's no such thing as enough storage space. There's a limit, after all, to the things you can squirrel away in your basement and garage. What you really need is a garden shed--one large enough to house an arsenal of outdoor power tools while providing organized space for everything from rakes and shovels to fertilizer and fuel.

There are two choices when it comes to building a wooden garden shed: You can buy a kit--and put up with the manufacturer's choice of materials and layout--or you can design a structure to suit your own particular needs and tastes. This approach may cost more and take longer, but it's the best way to get what you want. We had in mind a basic 9 x 13-ft. shed built with decent materials and conventional framing methods. Material costs for our project came to around \$2400



# **Shed Foundation**

Most wooden sheds are set on concrete blocks or treated-lumber skids. That's all they need, even in deep-frost

situations, because the soil moves uniformly as the ground freezes and thaws. To accommodate our sloped site, we built on solid concrete blocks set on compacted crushed limestone.

Start by laying out and staking the four corners of the shed. Dig 6-in.-deep depressions at each corner and at the center of each long wall. Use a torpedo level to check that the bottom of each hole is level.

Pour about 4 in. of crushed rock into each depression, level it and compact the rock with a hand tamper. If your site is sloped, set and level the blocks on the uphill side first (Photo 1), leaving 4 to 6 in. above grade, then use a 2-ft. level taped to a straight 2 x 4 to determine the height of the downhill blocks. When stacking blocks for the downhill supports, glue them together with construction adhesive (Photo 2). Then, cover the area within the blocks with landscape fabric and 2 in. of crushed rock.

# **Building The Floor**

Cut pressure-treated 2 x 6 sill lumber to lie flush with the outer edges of the blocks, and then cut the band joists that rest on top of the sill. Stagger the sill and band-joist lumber at the corners and nail each sill piece to the bottom of a band joist. Fit the offset corners together (Photo 3) and secure them with 16d galvanized nails.

To lay out the floor framing, mark the first joist location 15-1/4 in. from the outside edge of the band joist, and mark all subsequent joists at 16-in. intervals.

Cut 2 x 6 joists to fit between the band joists. Sight down each piece to determine its crown (bow), and set the joists in place, crown up. Secure them with 16d nails driven through the band joists (Photo 4). Then, install the 3/4-in. tongue-and-groove plywood floor (Photo 5). Use the factory edges to make sure the band joists are straight, and nail with 8d galvanized nails.



Dig shallow holes and tamp in small-aggregate crushed rock. Level each solid block in both directions.



When stacking solid blocks to accommodate a sloping grade, glue them together with construction adhesive.



Build the sill box with treated 2 x 6 lumber. Stagger the sills and band joists so they overlap at the corners.



Set the floor joists in place, crown edge up, and nail them through the band joist with 16d galvanized nails.



Deck the joists with 3/4-in. tongue-and-groove plywood. Stagger each sheet and secure with 8d nails.

# **Adding The Walls**

Cut the wall plates for the long walls and lay out the studs on 16-in. centers with the first stud 15-1/4 in. from one end. At both ends of each wall, install triple studs to act as nailers for the short walls. You can use scraps in place of a center stud (Photo 6).

For the wall with the door, mark its rough opening on the plates. Build a door header from 2 x 6s sandwiched around a 1/2-in. plywood spacer. The length of the header is the rough opening plus 3 in. for the jack studs--the shorter studs on each side of the opening that support the header.

Cut two jack studs to the height of the rough opening, nail these to full-length, or king, studs so their bottom edges are flush, and secure these doubled studs to the floor plate at the rough-opening marks. Then, nail the header in place on the jack studs. Install the second top plate on each long wall, but cut 3-1/2 in. from each end.

We used T-111 vertical plywood siding on the shed. Set the first piece flush with the top plate, and nail it about every 6 in. along the edges and every 10 in. elsewhere, with 8d nails. Install the remaining sheets in a like fashion (Photo 7). Tip the wall up, plumb it and have a helper secure it with braces. Nail through the soleplate with 16d nails, and through the siding into the band joist and sill. Then, build the opposite long wall.

On the window wall, space the studs from a center stud to suit the window openings. Plan the short, cripple studs that are above and below the openings to fall on 16-in. centers.

Use 2 x  $\overline{4}$  stock and 1/2-in. plywood to build the window headers. Unlike the door opening, each window opening requires a horizontal 2 x 4 that's supported by cripple studs.

After nailing together the king, jack and cripple studs for the window wall, secure them to the plates and add the headers (Photo 8). Install the siding, but leave the second top plate off each end wall until they're up.

Our vinyl windows came with nailing flanges. Cut the window openings with the siding in place. Position the windows so they're square with the wall, and nail through the flanges with roofing nails (Photo 9).

Then, raise the end walls and nail them at the corners. Nail a top plate onto each end wall so it overlaps the lower top plate on the long walls.



Nail three studs together at both ends of the long walls. You'll nail the end studs for the short walls to these.



Nail 4 x 8 plywood siding directly onto the studs. Use the siding's factory edges to help square the wall.



Set the window headers in place on top of the jack studs and secure them by nailing through the king studs.



Drop the windows into wall openings and square them with the wall. Fasten them with galvanized roofing nails.

# **Framing The Roof**

The best approach to building roof trusses is to use a jig laid out either on the shed floor or on a piece of plywood.

Start by drawing a centerline across the plywood. Then, nail a straight 2 x 4 along the bottom of the plywood to serve as a stop for positioning the bottom chord of the truss. To make the bottom chord, cut a 2 x 4 to match the width of the shed. Mark its center as well.

Our roof is sloped to rise 7 in. for every 12 in. of horizontal run. To use a rafter square to mark the angled cuts on the ends of the bottom chord, align the 12-in. mark of the wide blade with a lower corner of the stock, then pivot the square about this point until the 7-in. mark of the other blade lines up with the lower edge of the 2 x 4. Scribe the angled line and repeat at the opposite end. Then cut to the lines.

With the bottom chord in place and centered, use your rafter square to mark the top angled cuts on two truss rafters, and make the cuts. Position the three pieces, and check that they're centered and meet properly. Then, nail 2 x 4 stops against the outside edges of the sloping members to aid in aligning the remaining trusses for assembly.

Cut the rafter tails at the appropriate angle, allowing for an 8-in. overhang. Assemble the trusses with 1/2-in. plywood gussets over each joint. Use construction adhesive and nails to secure the gussets. Note that the inner trusses are simple triangles with gussets on both sides. The end trusses have vertical nailers for securing the siding, with gussets on the inside only (Photo 10).

Toenail the end trusses through their bottom chords, and hold them plumb with 1 x 4 braces. Nail a 3/4-in.-thick spacer to the tail of each end truss. Stretch a string between the spacers, and install the remaining trusses so their tails are spaced 3/4 in. from the string (Photo 11).

With the trusses in place, install siding on the gable ends and build the gable overhang from  $2 \times 4$  blocking nailed along the rake of the roof. Cover the blocking with  $1 \times 6$  cedar boards secured with 8 d nails.

Finish the underside of the roof overhang with 1/4-in. plywood. Then, deck the roof with 1/2-in. plywood, leaving a 1-in. gap on each side at the peak for ventilation (Photo 12). Cover the plywood with roofing felt.



Make a truss jig on a piece of plywood. Glue and nail the corners together with 1/2-in.-thick plywood gussets.



Install the end trusses, then stretch a string between them. Use the line to help position the remaining trusses.



After adding the blocking and fascia at the gable ends, cover the roof with 1/2-in. plywood. Secure it with 8d nails.

# **Detailing And Door**

Trim the corners with 1 x 4 rough cedar and use 1 x 2 cedar strips under the eave, where the soffit meets the siding. When trimming the door, use 1 x 6 pine for the jamb--ripped to 4-1/8 in.--and 1 x 4 cedar for the exterior. We protected the plywood floor at the door with a 16-ga. sheetmetal edging that we had fabricated locally. Slightly recess the back face of the window trim on a table saw so that it fits over the flange.

To build the door, cut tongue-and-groove car siding (V-groove pine) to length and lay it out on a level surface. Square the assembly and screw 1 x 6 crosspieces at the center and near each end. Then, install two diagonal braces (Photo 13). Prime and paint both sides of the door and hang it with decorative T-hinges (Photo 14). Install a matching, lockable latch in the middle crosspiece.

# **Capping It Off**

We chose architectural asphalt shingles, but 3-tab asphalt or cedar shingles also would have worked. Begin by trimming the perimeter of the roof with drip caps. Install the eave drip caps first, slipping them under the roofing felt. Then add the rake drip caps over the felt. Roll out an asphalt starter strip along the eave so it overhangs about 1/2 in.

Install shingles from one edge, using the spacing recommended by the manufacturer. At the edges, let the shingles overhang the drip cap by 1/4 in. (Photo 15).

Trim away shingles that cover the 2-in. ventilation space at the peak. Then center the ridge vent and tack it in place with roofing nails. We used VentSure Rigid Roll Ridge Vent made by Owens Corning (800-438-7465; www.owenscorning.com).

We chose special cap shingles to match the architectural shingles. Install the first cap shingle on the ridge with 1-3/4-in. roofing nails. Install the second over the first, leaving the recommended exposure, and continue across the roof (Photo 16). Cover the nails of the last shingle with a light coat of asphalt cement.





Build the door with tongue-and-groove pine car siding. Use 1 x 6 pine to brace it laterally and diagonally.



Hang the door with heavy-duty T-hinges, using longer screws in the doorjamb. Then, install a lockable latch.



Prepare the roof with drip caps and a starter strip. Offset each row of shingles and run the edges 1/4 in. long.



After nailing the ridge vent over the gap left at the peak, install cap shingles by nailing through the spacer tabs.

5 things to know about building your own storage shed <a href="http://realestate.msn.com/article.aspx?cp-documentid=19319504">http://realestate.msn.com/article.aspx?cp-documentid=19319504</a>

Popular Mechanics writer Joseph Truini tackles 5 of the biggest reader questions about designing and building these



outdoor structures. By Joseph Truini, Popular Mechanics

**Over the years,** Popular Mechanics has published several articles about designing and building backyard storage sheds, many of which I'm proud to have written. These articles have always generated a lot of mail from readers looking for

specific answers to their shed-building questions. It's not possible to answer every question, but here are answers to the five most frequently asked ones.

# 1. I'm about to build a 6-by-8-foot storage shed for my lawn and garden tools. Do I need a building permit for such a small building?

Great question. There's a common misconception that building permits are required only for sheds larger than 100 square feet (or some other arbitrary size). That is simply not true. You must apply for a building permit regardless of the size of the shed, and there are three very good reasons why.

- First, the town building inspector will want to make sure the shed is built to code so that it won't sink into the ground, suffer a catastrophic roof collapse or be blown over by a strong wind. (Go ahead and laugh, but all three incidents occur all the time.)
- Second, town officials will need to approve the proposed building site to ensure it isn't encroaching into wetlands, sitting over a septic system or straddling a property line.
- Lastly, if you build a shed on your property without first obtaining a building permit, the town can make you either move the shed, or even take it down completely.
- For specific shed-building code requirements in your town, visit the municipal building department.

# 2. We're fortunate to have a relatively large backyard. Do you have any tips for where we should build the shed?

One of the most important aspects of building a shed — regardless of the size of your backyard — is selecting the most appropriate building site. Here are some general rules to consider when siting your shed:

- Never build a shed at the bottom of a hill or in a low-lying area that collects water. The constant moisture will rot wood, blister paint and cause mold and mildew to grow on items stored inside.
- Maintain the setback distances suggested by the building department. You typically can't build a shed within 10 feet of the rear property line, and 15 feet from a side-lot line.
- Don't make the mistake of building a storage shed into the deepest back corner of the yard. Such an out-of-theway site might look nice, but it's not very convenient when you must traipse back and forth across the yard every time you need to retrieve a tool. Build the shed closer to the house or garage, and everyone will be more likely to return items.
- If your backyard is slightly sloping, position the front of the shed (the side with the door) on the high side, so land slopes down toward the rear. In that position, it'll be much easier to step into the shed since the door's threshold will be closer to the ground.
- If possible, keep the shed away from extremely shady areas. Exposure to direct sunlight and breezes will keep a shed dry and free of rot and mold.

# 3. What type of foundation would you recommend to support a 10-by-16-foot storage barn?

There are two basic types of shed foundations: on-grade and permanent. The building inspector will ultimately decide which type of foundation you'll need to build; the decision is typically based on the size and height of the building. The following are the basic differences between the two types.

On-grade foundations are the easiest to build since they don't require digging postholes or pouring concrete.
 Instead, they're built right on top of the ground. On-grade foundations — sometimes called floating foundations — are usually constructed with solid-concrete blocks laid out in evenly spaced rows, or with parallel rows of large, pressure-treated timbers (aka skids). In each case, the blocks or timbers are leveled and then used to support the wooden floor frame.

- On-grade foundations are suitable for small- to medium-size sheds up to about 200 square feet. For your 10-by-16-foot shed, I'd recommend using twelve 4-by-8-by-16-inch solid-concrete blocks arranged in three rows of four blocks each. But again, be sure to get approval from the building department before beginning work.
- Larger sheds require a permanent or "frost-proof" foundation, which extends down to the frost line. This is necessary to provide the proper support and to protect the building from ground movement caused by seasonal freeze/thaw cycles.
- Permanent shed foundations are most often built by digging down to the frost line and pouring concrete
  footings, piers or slabs. Another option is a centuries-old building technique known as pole-barn construction:
  Holes are dug down to the frost line, then tall round poles or square posts are set into the holes and used
  support the floor frame, walls and roof.
- Contact the building inspector for frost-line depth in your region.

# 4. We had an old metal shed with a low-angle roof that eventually caved in after a 12-inch snowfall. I'm going to remove the metal building and construct a 12-by-16-foot wooden shed. What angle should I build the gable roof to properly support snow?

I never build sheds with shallow-pitched roofs because they have very little interior headroom, they don't shed snow and debris very well — as you discovered — and frankly, I think they're ugly.

For any gable-roof shed, I recommend a roof slope ranging between 10-in-12 (40 degrees) and 12-in-12 (45 degrees). Roof slope is calculated by the number of inches it rises vertically for every foot of horizontal run. For example, a 10-in-12 roof slope rises 10 inches for every 12 inches of run. That's plenty steep enough to shed snow, especially if you install metal roofing. Of course, this is assuming you frame the roof to satisfy the local building code. Using undersized rafters and spacing them too far apart won't support a heavy snowfall, regardless of the roof slope.

# 5. Where can I purchase plans to build my own shed?

There are a few good online sources for shed-building plans. My favorite by far is <a href="mailto:Better Barns"><u>Better Barns</u></a> (http://www.betterbarns.com/), which also sells high-quality shed hardware, but also check out: <a href="mailto:Summerwood Products"><u>Summerwood Products</u></a> (http://www.summerwood.com/plans/index.html), <a href="mailto:Barns"><u>Barns</u></a>, <a href="mailto:Barns"><u>Barns</u></a>, <a href="mailto:Barns"><u>Barns</u></a>, <a href="mailto:Barns"><u>Barns</u></a>, <a href="mailto:Barns"><u>Barns</u></a>, <a href="mailto:Barns">Barns</a>, <a href="mailto:Barns">Barns</a>,

Note that if you don't have the time or inclination to build a shed from scratch, you can buy a precut kit and assemble it yourself. For more information and to see what sizes and styles of sheds are available, visit: <a href="mailto:Better Barns">Better Barns</a>, <a href="Handy Home">Handy Home</a> <a href="Handy Home">Handy Home</a> <a href="Handy Home">Products</a> (http://www.handyhome.com/), <a href="handy Home">The Cedar Store</a> (http://www.lancasterbarns.com/).

#### How to build a Storage Shed http://www.buildeazy.com/shed 1.html

This free plan-set contains seven pages of detailed plans, drawings and step-by-step instructions for a 2400 x 3000 (8ft x 10ft) garden storage shed.

NOTE: This complete plan-set can also be purchased in downloadable PDF format for only \$5 free of advertising, print friendly and with additional data such as door plans, nailing and fastening information and more detail. For more info see http://www.buildeazy.com/plan-sales/shed24sbf\_sales.html



copyright \*\*\* Some great plans from this site. I have two neighbors who have built two different plans and both said they are excellent!

# Here are Some Ideas and Links for Storage Containers

Space Bags (be sure to check out the eHow instructions previously listed) <a href="https://www.spacebag.com/">https://www.spacebag.com/</a> the original and these are fantastic!







Of course ZipLoc now makes them too





Plastic bins and tubs come in all sizes and colors











Rubbermaid® ActionPacker® **Storage Containers** 



Rubbermaid® Brute® Tote with Lid



Rubbermaid® Horizontal **Storage Shed** 



Rubbermaid® Large Deck **Box with Seat** 



Rubbermaid® Patio Storage **Bench** 



Rubbermaid® Roughneck® **Boxes with Lids** 



Rubbermaid® Split-Lid **Deck Storage Shed** 



Rubbermaid® Square Brute® Containers

















Even plastic pallets

# **And for Food Storage**

\*\* Be sure to check with restaurants for freebies, Big Lots, Dollar Stores and Overstock.com for discounted items.



Bin Dispenser With Hinged Lid



Material Handling and Food Storage Boxes



PET Wonder Jars with Bail Lids



Polyethylene Tote Pans



PVC Clear Canister With Lid



RingLock® Containers



Round PVC Canister with Lid



r.weebly.com







Stor-Keeper Containers with Lids



Tamper Evident Deli Containers



Tear Drop Container



Vittles Vault II™



Vittles Vault™ Containers



<u>Vittles Vault™ STACKable Containers</u>





WALL-tainer™

White Canisters and Colored Lids





Rubbermaid® 11 Quart Food/Tote Box

Rubbermaid® Bouncer® Clear Carb-X® Cups





Rubbermaid® Bus/Utility Box



Rubbermaid® Flat Top Ingredient Bin with Sliding Hinged Lid



Rubbermaid® Food/Tote Boxes



Rubbermaid® ProServe™ Insulated Carriers



Rubbermaid® Slant Front Ingredient Bins With Sliding Lid and Scoop



Rubbermaid® Square Containers and Lids



Rubbermaid® Undivided Bus/Utility Tote



Rubbermaid® White or Semi-Clear Round Containers And Lids



Buddeez® Bag-In Dispenser for Bulk Foods



Buddeez® Bag-In Dispenser for Cereal



Buddeez® Bag-In Dispenser for Coffee



Buddeez® Bag-In Dispenser for Sugar/Flour



Buddeez® Bag-In Dispensers for Petfood/Birdseed



Buddeez® Big Daddy Bag-In Dispenser



Buddeez® Box Topper Lid™



Buddeez® Bun Size Bread Buddy



Buddeez® Kingsford® Kaddy Bag-In Dispenser





Buddeez® Sandwich Size Bread Buddy

Buddeez® Specialty Loaf Size Bread Buddy





Buddeez® Wide Loaves Bread Buddy

Dispensers with Attached Scoop

# Some great links with really good prices.

http://www.usplastic.com/catalog/default.aspx?catid=475&parentcatid=691 http://www.containerandpackaging.com/FoodStorage/foodstorage.asp

# Food-grade large tubs

Tubs and lids ranging from 21 oz to 3 gallons

# Glass jars for canning

Food grade glass for hot pack or cold pack

# **Round Buckets and Pails**

1 to 6 gallon buckets, in a variety of colors



#### Square buckets, pails and bins

1.5 quarts to 13 gallon food-grade containers and lids



# Jams, Jellies, Sauces, Salsas

Glass and plastic containers for jam, jellies, sauces, salsas

# Food-grade small tubs

Tubs ranging from 6 to 16 oz, colors: white and natural

# Large water storage

Water-grade containers ranging from 14 to 55 gallons

# **Small water storage**

Water-grade containers ranging from 1 quart to 5 gallons

#### Tall pasta or jerky

Tall clear canisters for pasta, dried meats, dry goods





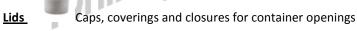
Plastic containers with an opening smaller than the diameter



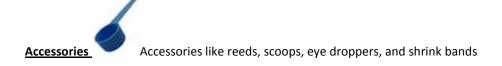
Cans

Plastic test cylinders and metal cylinder containers





**Metal-Band Closures** Lids, pumps and sprayers with a metallic-foil band



eader: Weebly.com



**Hinge Containers** 

Plastic containers with hinge lids used for samples



**Packaging Materials** 

Packaging materials such as tape, plastic wrap and paper shreds



**Plastic Pails** 

Heavy plastic buckets, pails and square bins and totes



**Plastic Pumps** 

Used for extracting liquids from a container



**Plastic Sprayers** 

Used for ejecting watery liquids from a container



**Metal Tins** 

Metal tin containers often used for candles, lip balms, salves, creams



**Plastic Tubs** 

Tapered plastic containers with open tops



**Plastic Tubes** 

Plastic malibu and lip balm tubes and tube lids



Water Storage

Plastic water storage containers ranging 1 quart to 55 gallons

# Some other items you can purchase either plans or kits, etc <a href="http://www.doityourself.com/scat/storagesolution">http://www.doityourself.com/scat/storagesolution</a> Storage Solutions

Creating storage space that is both functional and compliments your home decor can sometimes turn out to be quite a challenge; however, with the help of the articles found in this section, you can design and create storage units to fit the needs and style of your home.

- 5 Creative Uses for a Folding Garment Rack http://www.doityourself.com/stry/5-creative-uses-for-a-folding-garment-rack
- Adding a Basket to Garment Racks http://www.doityourself.com/stry/adding-a-basket-to-garment-racks
- Adding a Shelf to a Garment Rack http://www.doityourself.com/stry/adding-a-shelf-to-a-garment-rack
- Adding A Storage Space Under Your Stairs http://www.doityourself.com/stry/adding-a-storage-space-under-your-stairs
- Arranging China In Your Glass Cupboard http://www.doityourself.com/stry/arranging-china-in-your-glass-cupboard
- Benefits of Using a Metal Garment Rack http://www.doityourself.com/stry/benefits-of-using-a-metal-garment-rack
- <u>Build a Shoe Cabinet</u> http://www.doityourself.com/stry/build-a-shoe-cabinet
- Buying Laundry Room Cabinets That Will Last http://www.doityourself.com/stry/buying-laundry-room-cabinets-that-will-last
- <u>CD Storage Units</u> http://www.doityourself.com/stry/cdstorage
- Children's Storage Tips http://www.doityourself.com/stry/childrens-storage-tips
- <u>Commercial Garment Rack vs Home Garment Rack</u> http://www.doityourself.com/stry/commercial-garment-rack-vs-home-garment-rack
- Convert Wasted Space Into A Book Shelf http://www.doityourself.com/stry/convert-wasted-space-into-a-book-shelf
- <u>DIY Guide To Organizing Your Space Part 2</u> http://www.doityourself.com/stry/diy-organizing-space-2
- <u>DIY Guide To Organizing Your Space Part 3</u> http://www.doityourself.com/stry/diy-organizing-space-3
- <u>Home Wine Bar: Caring for Your Wine Bottles</u> http://www.doityourself.com/stry/home-wine-bar-caring-for-your-wine-bottles
- How to Build a 4 Tier Garment Storage Rack http://www.doityourself.com/stry/how-to-build-a-4-tier-garment-storage-rack
- How to Build a Bed Shelf http://www.doityourself.com/stry/how-to-build-a-bed-shelf
- How To Build A Sports Locker http://www.doityourself.com/stry/how-to-build-a-sports-locker
- How to Convert Knee Wall to Storage Space http://www.doityourself.com/stry/how-to-convert-knee-wall-to-storage-space
- How to Find Good Deals on Used Garment Racks http://www.doityourself.com/stry/how-to-find-good-deals-on-used-garment-racks
- How to Install a Built-In Ironing Board http://www.doityourself.com/stry/how-to-install-a-builtin-ironing-board
- How to Keep a Chrome Garment Rack From Rusting http://www.doityourself.com/stry/how-to-keep-a-chrome-garment-rack-from-rusting
- How to Keep a Garment Hanging Rack Sturdy http://www.doityourself.com/stry/how-to-keep-a-garment-hanging-rack-sturdy
- How to Make a Garment Rack http://www.doityourself.com/stry/how-to-make-a-garment-rack
- How to Make a Garment Rack Cover http://www.doityourself.com/stry/how-to-make-a-garment-rack-cover
- <u>How to Make a Heavy Duty Garment Rack with Iron</u> http://www.doityourself.com/stry/how-to-make-a-heavy-duty-garment-rack-with-iron
- How to Make a Portable Garment Rack http://www.doityourself.com/stry/how-to-make-a-portable-garment-rack
- How to Make a Spiral Metal Garment Rack http://www.doityourself.com/stry/how-to-make-a-spiral-metal-garment-rack

- How to Make Garment Racks out of Suitcases http://www.doityourself.com/stry/how-to-make-garment-racks-out-of-suitcases
- <u>How to Make Rolling Garment Racks Collapsible</u> http://www.doityourself.com/stry/how-to-make-rolling-garment-racks-collapsible
- How to Maximize Drawer Space http://www.doityourself.com/stry/how-to-maximize-drawer-space
- How to Mount a Wall Garment Rack http://www.doityourself.com/stry/how-to-mount-a-wall-garment-rack
- How to Organize a Junk Drawer http://www.doityourself.com/stry/how-to-organize-a-junk-drawer
- How to Pack a Storage Locker (this can work for a storage shed too) http://www.doityourself.com/stry/how-to-pack-a-storage-locker
- <u>How to Repair a Broken Wood Garment Rack</u> http://www.doityourself.com/stry/how-to-repair-a-broken-wood-garment-rack
- How to Repair a Clothing Garment Rack Cover http://www.doityourself.com/stry/how-to-repair-a-clothing-garment-rack-cover
- How to Repair Built-In Ironing Board http://www.doityourself.com/stry/how-to-repair-builtin-ironing-board
- <u>Installing Wheels to Make a Rolling Garment Rack</u> http://www.doityourself.com/stry/installing-wheels-to-make-a-rolling-garment-rack
- <u>Instant Storage Solutions</u> http://www.doityourself.com/stry/ara\_instantstorageso
- <u>Plastic Pegboard Makes for Convenient Garage Storage</u> http://www.doityourself.com/stry/plastic-pegboard-makes-for-convenient-garage-storage
- Reinforcing Portable Garment Racks without Making it Bulky http://www.doityourself.com/stry/reinforcing-portable-garment-racks-without-making-it-bulky
- Sew a Hanging Bed Organizer http://www.doityourself.com/stry/sew-a-hanging-bed-organizer
- <u>Storage Locker Buying Tips</u> http://www.doityourself.com/stry/storage-locker-buying-tips
- <u>Storing Decorative Flags</u> http://www.doityourself.com/stry/storing-decorative-flags
- Stylish Mudroom Storage Ideas http://www.doityourself.com/stry/stylish-mudroom-storage-ideas
- The DIY Guide To Organizing Your Space Part 1 http://www.doityourself.com/stry/diy-organizing-space-1
- <u>Using Fireproof Storage Cabinets to Keep Valuables Secure</u> http://www.doityourself.com/stry/using-fireproof-storage-cabinets-to-keep-valuables-secure
- What Materials are Needed for a Garment Wall Rack http://www.doityourself.com/stry/what-materials-are-needed-for-a-garment-wall-rack
- Where to Find a Wholesale Garment Rack http://www.doityourself.com/stry/where-to-find-a-wholesale-garment-rack
- Shelf Organizers: Make the Most of Your Storage Space http://www.doityourself.com/stry/homeorganizers
- Home Storage Organization http://www.doityourself.com/stry/home-storage-organization
- Make Your Own Utensil Holder http://www.doityourself.com/stry/utensil-holder
- Organizing and Decorating your Home with Shelving http://www.doityourself.com/stry/typesofshelving

**Lowe's** has some how-to but it all requires you buy shelving kits from them but the put your inventiveness cap on and take a peak then see what you can do on your own. <a href="http://www.lowes.com/cd">http://www.lowes.com/cd</a> How-To+Library:+Storage+Solutions 121683583

Well this should have given you a number of ideas to add your own to. Good Luck.

# Always have fun & Go for it ?

**TNT** 

A 50 Something, homesteading, Prepper ;-}

Links to Storage: Ideas, Plans, Tips, Products, How-to and More

12 Free Workshop Storage Plans: Tool	http://www.toolcrib.com/blog/2008/11/05/12-free-
	workshop-storage-plans-tool-cabinets-rolling-carts-under-
Cabinets, Rolling Carts, Under Stair Storage	stair-storage-and-more/
and More	stan storage and more
Bookcase With a Single Sheet of Plywood,	http://www.ehow.com/how 2140843 bookcase-out-single-
How to Build	sheet-plywood.html
Bookcases, What YOU Can Build from 1	http://knockoffwood.blogspot.com/2010/01/creative-guest-
Sheet of Plywood, PLANS: Simplest,	knock-off-wood-bookcases.html
Cheapest	
Building a basement storage solution	http://www.woodgears.ca/storage/basement.html
(shelves with storage boxes)	
Built-In Bookcases, How to Build	http://www.ehow.com/how 2134235 build-builtin-
,	bookcases.html
Camping and Outdoor Products	http://www.campmor.com/
Can Storage Racks, Building Your Own	http://canracks.com/
	and all the second
Cardboard Storage Ideas - Cardboard Box	http://www.wikihow.com/Make-a-Cardboard-Box-Storage-
Storage System	<u>System</u>
Country and Chauser I does How To Doild Your	http://fo.edeters.comedes.com/net/2000/02/45/hvilld.com
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Coffee Table to Fit Over Storage Ottomans,	http://www.hgtv.com/home-improvement/build-a-coffee-
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Collapsible Greenhouse	http://canadianhomeworkshop.com/index.php?ci_id=2734&la
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Crosscut Sled - ToolCrib.com's Ultimate	http://www.toolcrib.com/blog/2008/05/30/toolcribcoms-
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Guide to the Crosscut Sled  Cutting Board Plans - 20 Free Cutting Board	http://www.toolcrib.com/blog/2008/05/30/toolcribcoms-ultimate-guide-to-the-crosscut-sled/ http://www.toolcrib.com/blog/2008/10/14/20-free-cutting-
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Guide to the Crosscut Sled  Cutting Board Plans - 20 Free Cutting Board Plans + the 4 that Blew My Mind	http://www.toolcrib.com/blog/2008/05/30/toolcribcoms- ultimate-guide-to-the-crosscut-sled/ http://www.toolcrib.com/blog/2008/10/14/20-free-cutting- board-plans-the-4-that-blew-my-mind/
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Drawers - Making drawer handles	http://woodgears.ca/drawers/handles.html
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Firearm Storage, DIY	http://www.scribd.com/doc/14860366/Making-your-own- Desiccant-Packs-for-longterm-firearm-storage
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