

Spray Can, etc, Rack

by [fuzvulf](#) on May 15, 2007

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Intro: Spray Can, etc, Rack

A simple rack that recycles some otherwise wasted items into a useful rack for holding all those spray paint cans and other similarly shaped containers in a readily accessible, easy to see manner.

I don't know about you, but I never have enough space. I have shelves, but I always have bits and bobs that I wish to put on them other than spray cans. When spray cans are stored on shelves it always seems that the one you want is in the very back. This rack puts them all out where you know what you have and you can simply reach out and get the one you want.



step 1: Getting the tools you will need

The minimum tools you will need for this instructable are;
a pair of pliers that have wire cutters built in,
a screw driver with the sort of tip as the screws that you choose to use,
a saw.

I prefer the locking needle nose type pliers with the wire cutter at the base of the jaws when bending and cutting wire, but regular pliers will work fine.

For the saw, a cross cut saw will probably be the best unless you have access to a power saw.

For the screw driver, choose one that has a good tip that securely fits the screw type that you have chosen. Phillips or cross head screws that do not require pre-drilling will probably work best for this instructable.

A ruler with decent divisions (not shown)

A pencil or other marking device (not shown)



step 2: Materials Required

All of the materials required for this instructable, with the exception of the screws, I got from recycled sources.

You will need;

- Piece of wood, plywood, or MDF approximately 1 and 1/2 times as wide as your tallest can or container, or pieces of wood that can be mounted side by side to achieve this width. the length of the wood should be as long as you have or at least as long as you have room for.
- If you will be mounting yours as I did, you may need smaller pieces of wood to span the area between the structural wood in the ceiling unless you wish to also use some sort of anchoring device.
- A piece or pieces of wood to run the length of your board to keep the cans from either sliding out the back or falling through.
- A good supply of those wire hangers that clog so many people's closets and really shouldn't be used for clothing. If you can't recycle some then some cleaners will give you some if you ask, some will not.
- Pointed screws that do not require pre-drilling, to mount hangers and some longer ones to screw into studs.
- A piece of stiff paper.

-**optional** math skills a ruler and a calculator or pencil and paper.

step 3: Figuring out what size to make your hangers

Now you need to figure out what size to make your hangers. The first step of this is rather simple. Go through all of your cans you wish to store and find the one that has the largest diameter, the one that is the biggest round. Now if you happen to be one of the chosen few who have no problem with that four letter word "math" then you can go this route.

Measure the diameter (D) of your can or container.

plug that into the formula;

$$3.14159 * D = C$$

Now plug that result into this formula(remember to perform fuctions inside the parenthesis first)

$$D + (.5 * C) = B$$

Now allow some room for your can to slide in and out freely.

$$B * 1.04 = M$$

Now, If you were measuring in inches then use the following.

$$M + 2 = L \text{ Where } L \text{ is the length that you will be cutting your sections of coat hanger wire.}$$

If you are are measureing using centimeters then use the following.

$$M + 5.1 = L \text{ Where } L \text{ is the length that you will be cutting your sections of coat hanger wire.}$$

Now for the rest of us. If math does make your list of four letter words then use the following method;

Take a piece of stiff paper that is long enough to wrap around your can and overlap. Make a fold neatly along it's length so that your folded portion is about the width of a man's thumb. Either cut it along the fold or fold it back and forth until it will tear along this line. Now, make a neat fold on one end that is about the width of a man's thumb. Clamp that down to your board you plan to use. Place your can or container on the board next to this. Grasp the other end of the paper and pull it over the can. pull it slightly snug against the can, then let off a little to give some slack so that the can will be able to slide in and out of the finished loop of wire easily. Press the tip of your finger down onto the paper so that it pulls the sides down straight from the sides of the can. unclamp the other end of the paper, remove the can, and crease the paper. Flip the paper inside out and match the ends up. Cut or tear the end of the paper off to match the other end that is about the width of a man's thumb. Straighten out paper. this is approximately the length of the wire you want. You may have to play with the length to get it right.

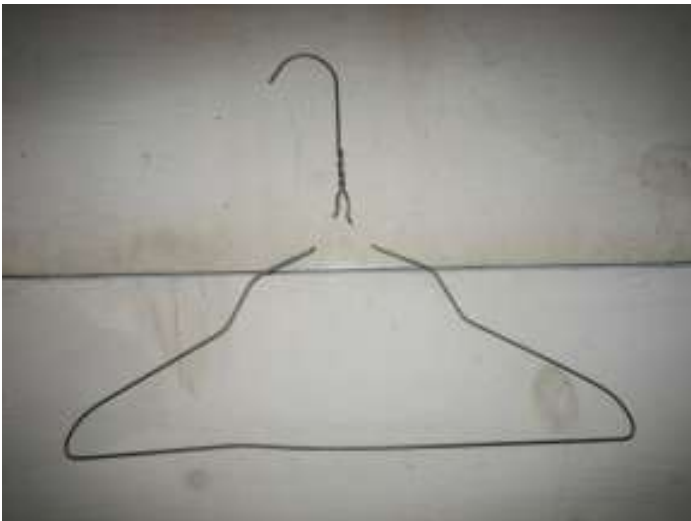




step 4: Preparing your hangers

Your hangers will come to you as they were meant to hang clothing on. The first thing to know is that trying to straighten out the twist where the ends join is usually more of a pain than is worth it. You will come out much ahead if you simply cut off this section. If you are extremely OCF (obsesively compulsively frugal) you can use the cut off bits as vegetable label stakes or something, otherwise recycle them or pitch them in the bin.

Next, the bends that are in the hanger are most likely not to be in the positions that you need them. The best approach is to straighten them first, cut them to the lengths you need then bend them as you need them.



step 5: Shaping your hangers

Now depending on whether you used math or paper to figure out how long your hangers need to be you will need to cut them that length. If you used math, measure and cut. If you used the paper method then align the paper with your straightened hanger and cut off a section. Next, grasp one end of the section you have just cut off with your pliers and bend it round forming a loop. This loop should be larger than the size of the shaft of your screw but smaller than it's head size so that the head will not slip through. Now, flip the wire around and do the same thing to the other end so that the loops are opposing each other. The length of the section of wire you bend for your loops should be overall about the width of a man's thumb, about 1 inch, 2.54 centimeters.



step 6: Bending hangers to shape and positioning them.

Bending the hangers is probably the most difficult portion of this instructable. At least doing it so that you end up with something that looks halfway decent. Be very careful with this step in particular. You will be working with sharp wire and sharp screws around a container that is pressurized. If you can find a piece of pipe that is the same diameter as your spray can or container then use that.

Now I lucked up, my largest diameter canister was also my shortest. If yours is not then you will have to go through your canisters and find your shortest one. Position the shortest spray canister on your board base close to one end and so that it will leave room for a stop board to keep you from pushing your cans too far back. Make a mark about a finger's width up from the base of the can or so. Go to the other end of the can, make a mark about a finger's width down from the top of the flat sided section of the can. Now, using either a board or a ruler mark along the length of your board maintaining that distance from the edge for both marks. Now you are ready to form your first loop and prepare for your second.

Screw through your loop in your first wire with the loop pointing out from where the can will be held. place either the can or if you are lucky enough to find a piece of pipe that is the same size as your can use that and position it right up next to your wire. grasp the wire with the tip of the pliers. Bend it around your can or pipe. Screw it down to hold it in position. Try sliding the can in and out to see if it is the proper size. If it is too tight then cut another piece of wire and add a little to the length of your cut wire and try again. if it is too loose then subtract. If you were a marvel of engineering and did it right the first time, you did better than I did, pat yourself on the back and go ahead and begin cutting wire to that length and bending the loops on the ends. You will need twice as many sections of wire as you have spray cans. ****note**** if your cans are extremely different in size you may need to do three loops per can or position some hangers closer together.

Once you have your loops formed on the ends of the wires then unscrew the second loop, measure the distance between the first hole and the second. Hook the second hanger loop under the second screw in the first loop. Make a mark on your positioning line the same distance as the first two holes are apart and place your can against the second hanger loop and bend it as you did the first one. Once you get the hang of it it should go rather quickly. Keep a check as you go that your largest can or container still fits in and out easily and adjust as necessary.



step 7: Finishing up

Once you get the first row done the second row goes the same as the first. Just make sure that you start your first loop hanger of your second row aligned as close to exact as you can with the first on you installed. Then as you bend the loop hangers install the screws so that they too align with the screws holding the ends of the loops in the other row. This will ensure that your loop hangers do not get misaligned and make using your storage system difficult.

Next you take a piece of wood that has a thickness great enough to keep your smallest can from sliding out the back of your hanger loops when pushed into the hangers or if you hang this on the wall then to keep it from falling out the bottom. Then you can either screw this directly into the ceiling sleepers or wall studs or you can use spanner boards as I did that are screwed into the ceiling sleepers and screw into them.

Other modifications may present themselves as you build. I have decided to use tool handle dip to coat the hanger loops for a smaller project to hold my acrylic paint bottles and assemble them as a system of shelves. This same method could be used to hold jars of similar sizes that themselves held screws.

Enjoy, hope it helps tidy up your shop as much as it did mine.

Related Instructables



Recycle plastic grocery bags, wire hangers and newspaper into Loons! by stinkymum



Make Green-Friendly Tools from Plastic Coat-Hangers by FeedTheGrid



SewUseful - Stiff Arm Sleeve Guard for Closets by openhouseworks



Template frame for spraycan by themakeclass



The Gem Cave Workshop (slideshow) by alinke



IT'S RUBBERMAN ! by yeehacmh



Pill Bottle Explosion Lamp by wholman



Coat Hanger Helping Hands by Brennn10

Comments

12 comments [Add Comment](#)



Murdok says:

Jun 1, 2008. 3:17 PM [REPLY](#)

I used this for my graffiti tools. I keep a can of paint, and a small round container (paintball holder) with my marker and tips in it in this rack. I have it screwed into the top of my closet so it's fairly hidden. Great instructable!



Mr. Deeds says:

Feb 23, 2008. 10:06 PM [REPLY](#)

I can see this being used as overhead storage for those cold ones when a man simply has no space for his beer/beers. Also can apply to energy drinks for those of us, myself included, who are not yet of legal drinking age. Rockstar and Monster Ftw!



Shifrin says:

Jan 5, 2008. 10:05 AM [REPLY](#)

I've always needed away to store my spraypaint cans, using a box just did not cut it! Great Instructable!

~Shifrin



lemonie says:
works for beer-bottles too?

May 15, 2007. 4:41 PM [REPLY](#)



caledonian says:
..take one down, pass it around...

May 15, 2007. 6:04 PM [REPLY](#)

More seriously, the rack in general isn't a bad idea if you have the space. I have to cram all this stuff in the apartment pantry to get it out of the way.



fuzvulf says:
Beer? Sure why not? I think that you'd probably want to mount it above an air conditioner vent to keep them at least something like chilled.

May 16, 2007. 2:02 AM [REPLY](#)

As to the space thing. That is why I came up with the idea. All of "my" stuff is restricted to the shop by the wifer. It gets crowded in there. So to clear out working space so I could have room to try out some of the other cool instructables that I see on here I decided to do my own.

thanks again for the positive comments.

Fuzzy



fuzvulf says:
Just thought of something. You could make the loops and attach these to the bottom of existing shelves in a pantry, making use of vertical space. Fill the holes with wood putty when you move out and the landlord would be none the wiser.

May 16, 2007. 10:22 PM [REPLY](#)

Also a further note on the beer, you could make the hangers and instead of bending the loops on the end for the screws at 90 degrees just leave them straight and put the bend in the straight portion. then just hang them from the bottom of the fridge wire shelves, again making use of vertical space. you would probably need to take another piece of wire and do a wrap around the first hanger go straight back to the second hanger go back about an inch make a 90 degree bend toward the other side of the hanger loop, where the wire is even with the loop make another 90 degree bend back towards the front and a wrap around the back hanger and then if you still had enough wire go onto the front hanger again. This would keep the hanger stable, keep the beer from falling out the back and would provide air flow all around the bottle which would allow for more efficient cooling. You would have a nice in fridge beer hangar and still have room on the shelf for the lunch meat and left overs.

Fuzzy



Stercus Fit says:
That looks awesome. Do you think there's a way that it can be adapted for items that are not all the same size?

May 15, 2007. 8:53 PM [REPLY](#)



fuzvulf says:
If there not too far different then just using a bigger board to keep them from sliding out the back should suffice. If they are a lot different, then I would say group them according to similar sizes and make hanger loops of several different sizes. Also, you could use cheap recycled containers that are the same size that your items that you want to store would fit inside of and label them. Something like pringles cans or plastic peanut butter containers. That way you wouldn't need to have different size hanger loops.

May 16, 2007. 2:19 AM [REPLY](#)

Fuzzy



mothflavour2 says:
Any tips if you live in an earthquake-prone area?

May 15, 2007. 6:28 PM [REPLY](#)



fuzvulf says:
Thanks for the positive comments above. And for earthquake prone areas I think that you would probably want to mount it upright on the wall using earthquake rated hardware. It would definately be more secure than putting them on shelves. I think that maybe you would also want to make the board that keeps them from slipping out the back a little bigger.

May 16, 2007. 1:58 AM [REPLY](#)

Fuzzy



Sgt. Waffles says:
Thats a really good idea! I have loads of half empty spray paint cans rolling around in the garage, and i needed a way to organize them. I think ill work on this this weekend. Good job, keep up the good work!

May 15, 2007. 11:07 PM [REPLY](#)