## Cardboard Hardware Box Plans Part of the Shop Cabinet System



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## Some important notes

1. These boxes are designed to fit the Drawers in my Modular Shop Cabinet System. If you haven't already seen this system, please check it out here: http://jerswoodshop.com/ cabinet-system/
2. This project works best using 4 mm thick corrugated cardboard, preferably in good condition. Common shipping boxes can be flattened and used for this.
3. If you haven't seen the YouTube video in which I build these boxes, please watch it by going to http://jerswoodshop.com/cardboard-hardware-boxes/ and clicking the "watch build video" button.
4. If you have questions about the build, feel free to contact me at jerswoodshop@gmail.com. I welcome constructive criticism \& feedback on my design and plans.

## Make the box form

To create repeatable boxes, you'll fold them all around the same form. First, determine the height that you want your boxes to be. I recommend making the form 8 mm shorter than the drawer depth. This will result in boxes that are $1-2 \mathrm{~mm}$ lower than the sides of the drawer. So for a 27 mm deep drawer, the form should be 19 mm tall, for a 65 mm deep drawer, the form should be 57 mm tall, and so on.
Tip: it works well to use 19 mm (3/4") MDF to make the form, since the depths will always be a multiple of 19 mm .

Next, determine the length \& width you want your boxes to be. To perfectly fill the Drawers in my Shop Cabinet System, they need to be a multiple of 75 mm (or 37.5 mm , if you want really tiny boxes). The length \& width of your form will be 8.5 mm less than the outer dimensions of your box (to account for two thicknesses of 4 mm cardboard, plus 0.5 mm of clearance). So for $75 \times 75 \mathrm{~mm}$ boxes, the form will be $66.5 \times 66.5 \mathrm{~mm}$, for $75 \times 150 \mathrm{~mm}$ boxes, the form will be $66.5 \times 141.5 \mathrm{~mm}$, and so on.

Cut oversized layers of MDF or plywood to build up your box form, and glue them together. Once dry, trim them to the final dimensions you determined.


Once trimmed to the final size, drill two holes in the top, large enough to stick your fingers in. You'll use these to extract the form from a finished box. I recommend drilling the holes all the way through, so the jig isn't directional. Also cut a $2 \times 18 \mathrm{~mm}$ deep rabbet along one corner, as shown, to provide clearance for the flap on the inside of the box. The rabbet should be on the shorter end of the form, if the form isn't square.


## Make the template

To cut out the shape of the cardboard repeatably, you'll use a template. I made mine from thin plywood. See the image to the right to help you determine the size \& shape of your template. The dimensions in parenthesis and in brackets can be used if you're making a $75 \times 75 \mathrm{~mm}$ box or a $75 \times 150 \mathrm{~mm}$ box, respectively.


## Make the Hardware Box

Use your template to cut out a box blank from 4 mm corrugated cardboard.


Fold the cardboard around the form, so that the flap ends up inside the rabbet. The corrugations on the flap will get flattened - that's ok. Apply hot glue to the flap, then glue the box end to the flap.


Place a scrap of the same 4 mm cardboard under the form, and push the box down, so the jig slides up by 4 mm inside the box.


## Make the Hardware Box (continued)

Crease the two side flaps over the top of the form. The box will tend to slide up the form while doing this, so be sure the keep it pressed down. Once they're creased, fold them back out of the way.

On a square box, the "side flaps" are the ones that stick up farther. On a rectangular box, the "side flaps" are the lower ones on the long edges of the box.


Apply two lines of hot glue near the center of the box, where the ends of the side flaps will land when you fold them in. Fold the side flaps, then immediately flip the box over and press down on the form to smash the bottom flat while the glue cools. I like to use my drill press to press it down, and I like to press it against an aluminum plate to cool the glue quickly. It's ok to flatten the corrugations on the bottom. Once cooled, pull the form out of the finished box.


