

## Pull-Out Pantry Design & Construction

A pull-out pantry was to be located next to the refrigerator and it was going to be accessed from only one side. This is because the cabinet is noticeably shallower than the refrigerator and the white oak panel, so the pull-out couldn't be accessed easily from the refrigerator-side of the unit. For this reason, I built a pull-out with a back on the same side as the refrigerator.

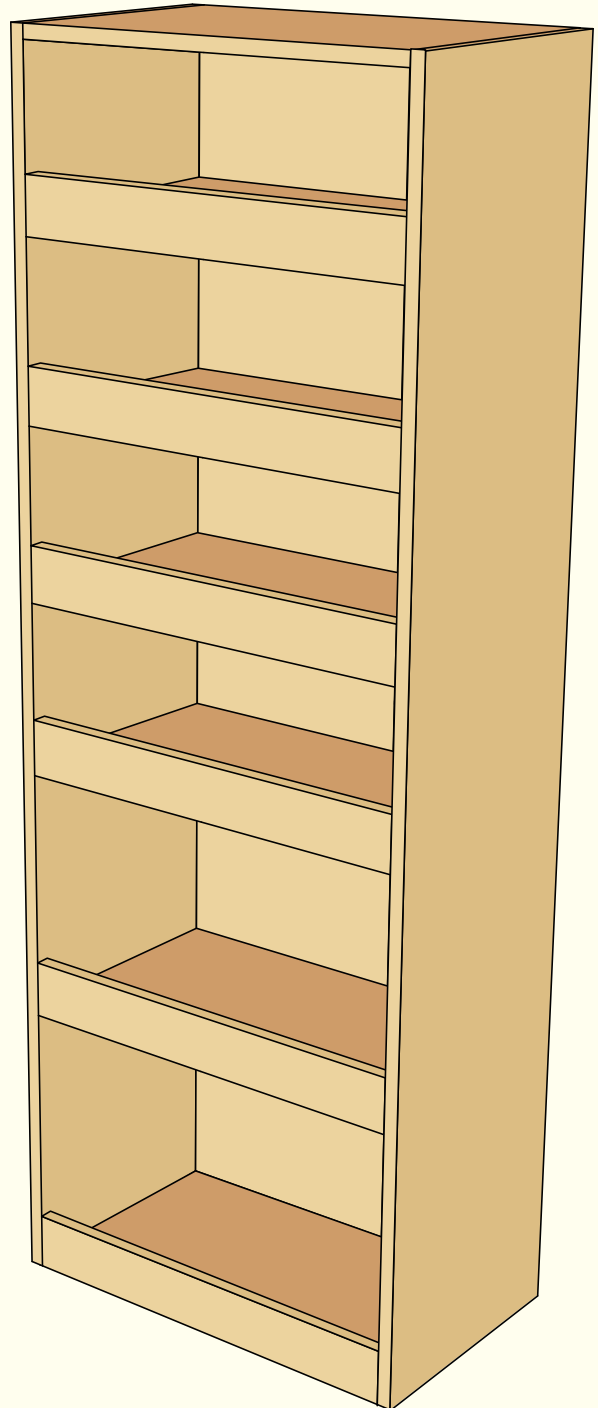
I used  $\frac{1}{2}$ " plywood for most of the unit and attached a  $\frac{1}{4}$ " back. (These material choices helped keep the weight down.) To stiffen the shelves, and to keep items from falling off them, I added a  $\frac{1}{2}$ "-thick lip along the front edge of each shelf. This ensured that they wouldn't sag over time. In terms of construction, the unit was essentially a large box with a back screwed on. To make the finishing process easier, I didn't fully assemble the unit until it had been lacquered. Once the finish was dry, I assembled the unit. This saved me a lot of time. If I had installed the shelves prior to finishing, that would have created a number of small, hard-to-reach areas that would have taken a lot more time and effort to finish.

Installing the slides into the cabinet was easy (although I did need to get some help moving this unusually tall and heavy cabinet). The key to installing the slides is to place the cabinet on saw horses so that I could access the bottom of the pull-out. (Before I attached the slides, I had been wondering how I'd accomplish this. I looked around my shop and saw a pair of sawhorses against the wall — the solution was obvious.)

I used Accuride 301 series slides, which I highly recommend for this purpose. They are very forgiving, in that they didn't require much in the way of precise alignments. The critical factor was that they needed to be set flush to the front of the cabinet so that the front of the pullout would be flush with the front of the cabinet. They also needed to be parallel to the cabinet sides but there was no particular spacing required in terms of their side-to-side positioning. Once the slides were screwed to the cabinet bottom, I lifted the pull-out into place and centered it side-to-side within the cabinet. (This pullout was  $15\frac{1}{4}$ " wide, and the opening was  $16\frac{1}{2}$ " wide, so I had a gap of  $\frac{5}{8}$ " on each side.)

I extended the slides a couple of inches and aligned the front of the pull-out with the front edge of the slides, then I secured the slides to the bottom of the pull-out from below. This is where the sawhorses were essential. I extended the pull-out completely and made sure the gap on the sides was still  $\frac{5}{8}$ " — this let me know that the pull-out was parallel to the cabinet sides and would slide easily. I then screwed the

slides to the bottom of the pull-out along the back edge and tested the movement. I installed a standard side-mount slide on the top of the pull-out to keep it stable once it was loaded up. I mounted the slide to the cabinet panel prior to putting the panel in place. The slide required  $\frac{1}{2}$ " of clearance above the pullout, so I made sure to allow for that when I positioned the panel above the pullout. Once the panel was screwed in place, I extended the pullout and screwed the slide to the top it.





STEP ONE First, I installed the lower guides in the bottom of the cabinet.



STEP TWO I set the pullout inside the cabinet on the lower pullout hardware and centered the pullout in the cabinet. The weight of the cabinet allowed me to pull the shelf unit forward without it sliding out of place on the hardware. I pulled the unit out about 5". To attach the pullout to the bottom slides, I installed the front screws first, then pulled the unit out to install the back screws.



STEP THREE By first installing the upper drawer slide on the bottom of the top shelf, I was able to locate the shelf at exactly the correct height in the cabinet.



STEP FIVE There is plenty of storage space above the pullout for the lesser-used items in your kitchen.



STEP FOUR I extended the drawer slide until it reached the front of the pullout, made sure the top of the shelf unit was centered in the cabinet and installed the front screw. After testing the operation of the pullout, I fully extended it and installed the back screws in the drawer slide.

## PULL-OUT PANTRY VERSION 2

Here's an alternative pull-out pantry design that varies somewhat from the first one I presented. This design allows access from either side. Basically, this pullout consists of a series of "drawers" that are spaced at convenient heights and secured to a matching set of vertical end panels. Once assembled, the unit is both light-weight and sturdy. In this case, I used Accuride 9301 slides with a bottom-mount option.



When assembling units that are large, I use what I can to make a bench (note my table saw serving as a "bench").

The shelves are attached to the sides of the pullout using screws. This is an effective and quick way to assemble this pullout.

## WORKING IN PRODUCTION RUNS

More than most other projects, kitchens will offer you the double-sided opportunity-and-challenge of building identical items. Such work sequences are generally called “production runs”. If you haven’t done much of this before, it may not hurt to build one item of a series beforehand just to reassure yourself that it’ll work and to double-check your planning and techniques. For example, if you have to build a set of ten drawers, you may find that it helps your confidence to simply build one first and make sure that it works out as planned. This also allows you to catch any mistakes or discrepancies early and avoid having an entire set of ten that didn’t turn out as planned. You can then go ahead and build the other nine as a production run.

Once you’re ready to do an entire run, planning is critical, and good planning means knowing what materials you’ll need and how much of them. Nothing spoils productivity like having to leave the shop and head back to the store. And be forewarned: If you’re just guesstimating, drawers in particular always seem to require more material than you would think.

A helpful mental approach is to think in terms of components rather than finished items. You can focus more on “how many sides/fronts/back/bottoms” do I need. You’ll find yourself multiplying by two quite often, because each drawer has two sides, and the front and back are often identical in size.

Because working in production runs can be confusing initially, the most helpful tip that I can offer is to break down the process into individual steps. For example:

1. Rip drawer stock into 6" widths from 4x8 x 1/2" plywood
2. Using a dado blade, cut a groove for the drawer bottoms
3. Crosscut the stock to finished lengths on the miter saw
4. Edge-band the top edges of the parts
5. Assemble the front and two sides into a U-shape
6. Measure for drawer bottoms and cut them out
7. Insert the drawer bottoms and fasten the final drawer back in place

This may seem unnecessary, but I find that breaking down the process keeps me moving swiftly and not being so overwhelmed with the number of parts and assemblies. With practice it gets a lot easier. The stack of drawers that you see here took me under an hour from start to finish (not including the clear-coating). Granted, the joinery was quick, just glue and nails, but you can see that the method pays off. And the more finished units you’re trying to end up with, the more beneficial the time savings becomes.



