Sliding Kitchen Cabinet Drawer Plans

by

Our Home from Scratch

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Attempt at your own risk. Some woodworking skills are required.

This procedure contains affiliate links.

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Introduction

These plans were developed from the very same sliding kitchen cabinet drawers that are in our home. The cabinet company equipped the cabinets with one sliding drawer per each cabinet and we loved the convenience of them so much, we built additional matching drawers of our own. This project has greatly improved our ability to access everything in our base cabinets. Gone are the days when we have to kneel on the floor and dig for our bowls, small appliances or Tupperware.

The build process is fairly simple and can be done with a table saw or router in a few short hours. Because your kitchen cabinets may differ considerably from mine, I recommend you build and install ONLY ONE sliding drawer first. That way you can confirm whether or not these plans work with your cabinets. You may need to make some corrections if they don't fit. You'll also be able to select the proper drawer slide hardware upfront rather than buying an entire kitchen worth of drawer slides. Once you have the first drawer installed and working you can build the rest.

The drawers are made from solid maple hardwood and birch plywood and I recommend you stick with that material since it's readily available at most hardware stores and it will hold up much better over time compared to pine or other softwoods.

If you get stuck on any particular part of these woodworking plans, feel free to email me at John@ourhomefromscratch.com with any questions you may have.

I hope you enjoy the challenge of building this project and get as much use out of these drawers as my wife and I have.

R,

John

Getting Started

These woodworking plans will take you step by step through the build of one sliding cabinet drawer. The first thing you should do is read through these procedures to familiarize yourself with the materials, tools and skill requirements necessary to complete them.

Before you purchase any material, be sure to use the Drawer Calculator to determine the dimensions of the boards. You'll need to use the Drawer Calculator while these plans are open on your computer. Once you have entered the measurement values, you'll be able to print out the plans if you wish.

Tools

The tools I used for this project include the following:

1. Table Saw with 60 tooth saw blade
2. Miter Saw (also with 60 tooth saw blade)
3. Pneumatic Brad Nail Gun with Pancake Compressor

Drawer Calculator

Because every cabinet in your kitchen may be a different width, it makes more sense to include a calculator that you can use to make these plans adaptive to each unique cabinet rather than to include a table full of different options.

You will need to take two different measurements on each of your cabinets. Figure 1 shows where those measurements are taken.

Figure 1: Drawer Measurements

Measurement #1 is the cabinet opening from face frame edge to face frame edge. If your cabinets don't have face frames (Ikea cabinets for example), then you just need to measure the opening width from side to side.

Measurement #2 is the cabinet depth from the back of the cabinet (measured inside) to the FRONT OR OUTSIDE FACE of the face frame. Again, if you don't have face frames, just measure the cabinet depth to the front.

Type in the values of the measurements in the boxes below in inches.

MEASUREMENT #1: 14.75

MEASUREMENT #2: 23.375

Material:

Listed below in Table 1 is a list of all the lumber you'll need cut to build one sliding drawer. All of this lumber should be available at your local large hardware store (Lowe's, Home Depot, True Value, etc.).

TABLE 1: MATERIAL CUT LIST

Item	Description	Width	Length (in)	Qty
1	3/4" Thick Maple Board (FRONT)	2.5"	14.500	1
2	1/2" Thick Maple Board (SIDES)	2.5"	21.000	2
3	1/2" Thick Maple Board (Back)	2.5"	13.125	1
4	1/4" Thick Birch or Maple Plywood	13.250	20.375	1

Machining:

With each board cut to length using the values in Table 1, the front and sideboards need to be notched.

Let's start with the front board. You need to notch out 11/16" from each end and then 11/16" from the backside of the board. See Figure 2. You can perform this notch on the table saw with a regular blade or a dado or you can use a router table. See Figure 3 for an example of how to setup the table saw.

Figure 2: Front Board Notched

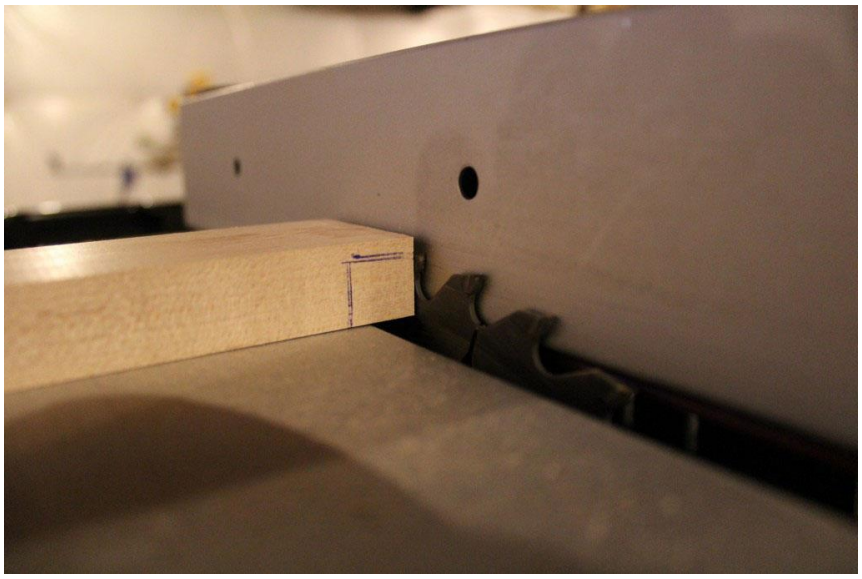

Figure 3: Table Saw Notch Setup

The two sideboards will also need two notches, one on each end. However, each end will have slightly different notch dimensions. The side that will interface with the front board will have an 11/16” by 1/4” notch. The rear-interfacing end will be notched 1/2” by 1/4". See figure 4.

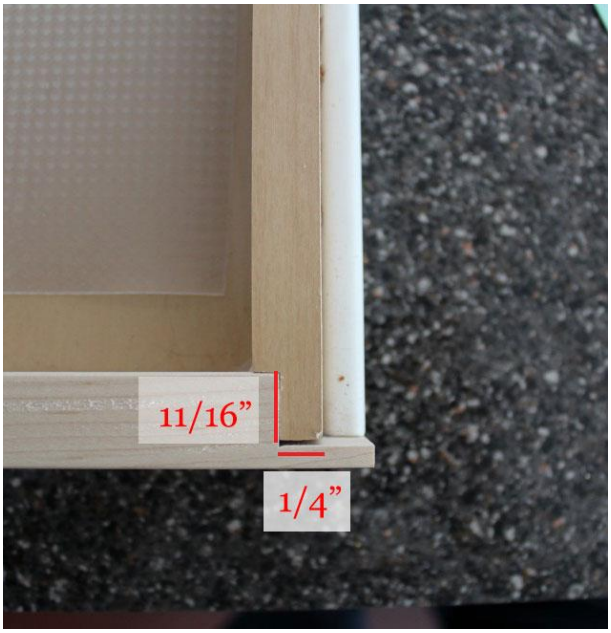

Figure 4: Front Notch on Sideboard

With the notches completed on the front and side boards, the dado for the shelf can now be machined. All four drawer boards, the front, the sides and the rear boards, need to have a 1/4" wide and 1/4" deep groove for the shelf. The dado should be located 3/8" up from the bottom edge. See Figure 5.

Figure 5: Groove for shelf

This completes the material preparation portion of the plans. The 1/4" plywood shelf board's final dimensions are listed in Table 1 so it won't need to be trimmed down any further unless it doesn't fit during assembly.

Assembly:

Perform a dry fit of the four drawer boards and the plywood shelf. Using a tape measure, check for square by measuring the diagonals of the shelf. Make any adjustments as necessary if it doesn't fit together well.

To assemble the drawer, use wood glue at each notched joint along with some 3/4" long brad nails. The plywoodvwon't need to be glued into place and can float freely in the groove if you wish. Use woodworking clamps to keep the drawer together while you check for square before you nail it. See Figures 6, 7 and 8.

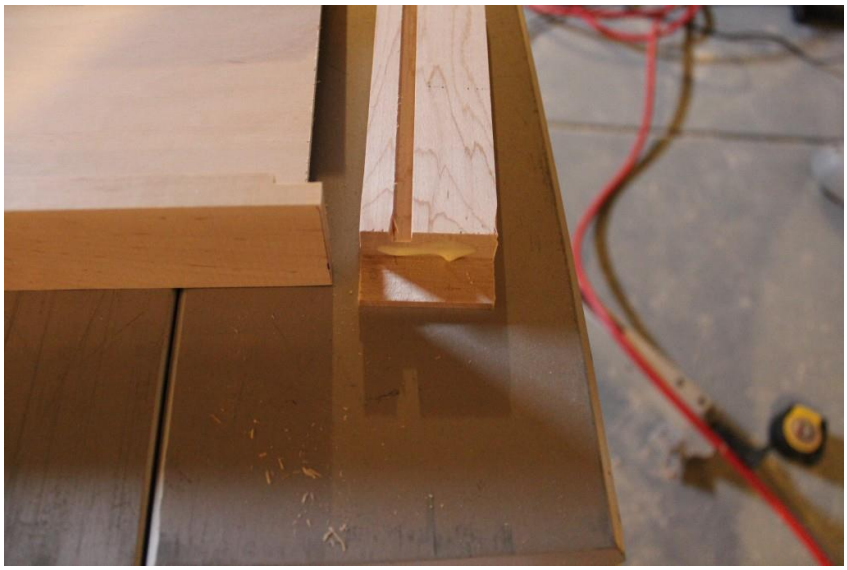

Figure 6: Glued Joint

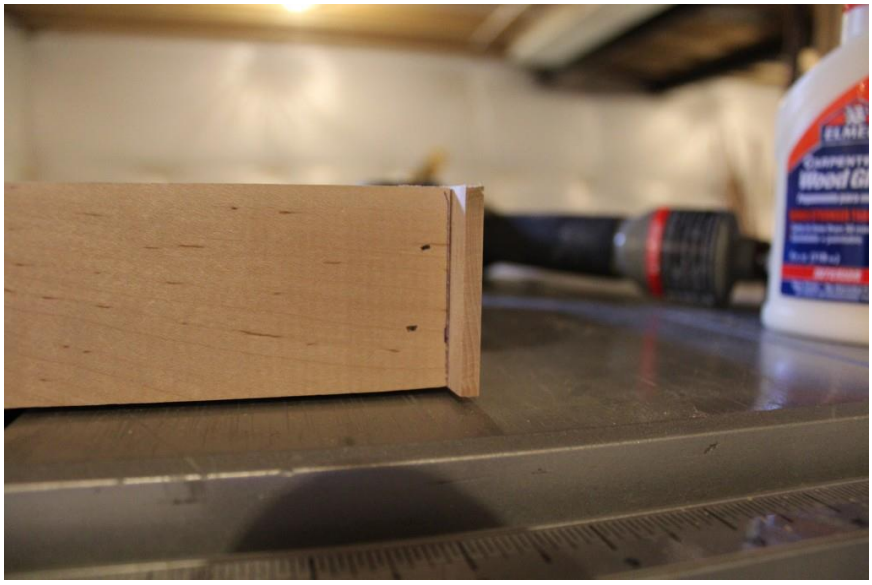

Figure 7: Brad Nails at Joint

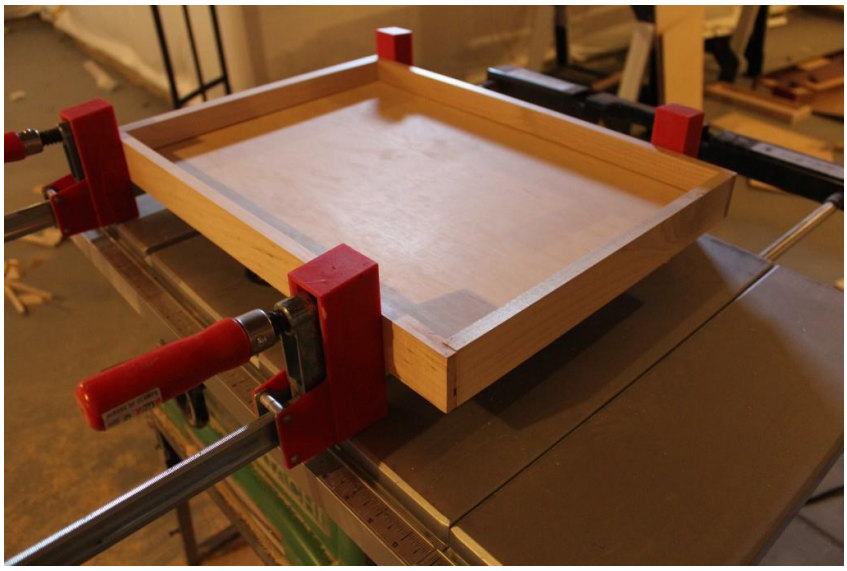

Figure 8: Clamped Drawer

After the wood glue cures, the clamps can be removed and the drawer slide hardware can be attached to both the drawer and the cabinet. For these drawers, I used European style drawer slides, which should be available at any local hardware store. The front of the slides can be attached directly to the face frame using wood screws. The rear of the slides can be secured to the cabinet back or sides using the appropriate brackets designed for your slides. You can also install wooden blocks onto the interior cabinet slides instead of brackets.

My kitchen cabinets were built by Timberlake Cabinet Company and have unique dimensions and attaching brackets (Figure 9). Timberlake hardware needs to be purchased from a Timberlake cabinet dealer. We chose to stick with the existing Timberlake hardware including slides and brackets for our cabinets for the purpose of consistency, but you should be able to use whichever drawer slide hardware fits your cabinet and drawer.

Figure 9: Slide Hardware Installed

Resources

This project appeared on our blog, Our Home from Scratch, over a series of blog posts. The hardest part of the process was trying to find the manufacturer's original drawer slide hardware. We were originally quoted something in the neighborhood of $50 per drawer for hardware, which prompted us to look elsewhere unsuccessfully. Eventually, we called a different supplier and were able to get the slides for around $17 per drawer. Again, this only applies if you have Timberlake cabinets.

You are welcome to refer to those blog posts for reference if you wish, but keep in mind that these plans are the ultimate authority for the design and dimensions.

Post 1: Planning and Picking Material

Post 2: Making Cuts

Post 3: Machining the Joints

Post 4: Getting Groovy with Dado Blades

Post 5: Assembly

Post 6: Pullout Drawers Done

That's it. If you find any errors, have any suggestions for improvement or any questions, drop me a line at John@ourhomefromscratch.com

Thanks!!