

# andrew harris woodwork

## Chest of Drawers Plans



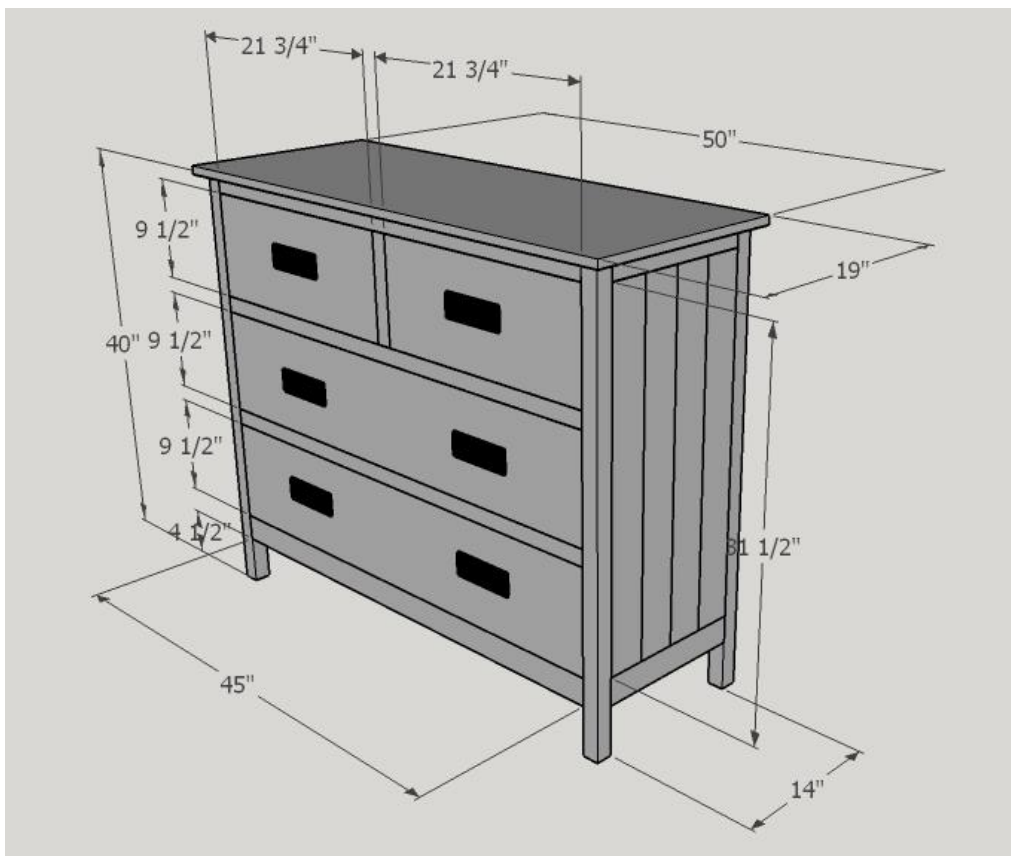
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## Introduction

This plan makes a chest of drawers that is 50 inches at the widest point, 19 inches deep and 40.75 inches high.

I have tried to ensure all steps are covered in these plans but if you find any errors in the plans or have a question then please email me at [info@andrewharriswoodwork.com](mailto:info@andrewharriswoodwork.com) to let me know.

All my builds are made with pocket hole joinery. You will need a pocket hole jig tool such as a Kreg Pocket Hole Jig in order to build them.



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## Shopping List

Size	Length	Quantity	Board Number
2 by 2	8 feet	2	1, 2
1 by 2	8 feet	2	3, 4
1 by 3	8 feet	1	5
1 by 4	8 feet	7	6 to 12
1 by 6	6 Feet	3	13, 14 and 15
1 by 8	8 feet	3	16,17 and 18
1 by 8	6 feet	1	19
1 by 10	8 feet	1	20
1 by 10	6 feet	1	21
Drawer slides	14 inch	4 pairs	
¼ inch plywood	See build notes as will depend on method of drawer construction		

You will also need:

- 1.25 inch pocket screws
- 1.25 inch wood screws
- ¾ inch finishing nails
- Wood glue
- Drawer pulls

**Estimated Material Cost:** \$220 plus cost of desired drawer pulls.

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## Cut list

Please read all instructions before cutting wood as shown below. I suggest some pieces are cut as you go to ensure a tight fit.

To minimize the number of boards to use plan your cuts I have given details of which board I cut the piece from. If you find a more economical solution then please let me know.

Size	Length (inches)	Quantity	Used For	Board Number
2 by 2	40	4	Legs	1 and 2
1 by 2	14	2	Side rails	4
1 by 2	9.5	1	Front vertical support	4
1 by 2	45	3	Front horizontal rails	3
1 by 2	14	6	Drawer slide supports	4
1 by 3	45	1	Front horizontal rails	5
1 by 3	14	2	Side rails	5
1 by 4	45	2	Back rails	6
1 by 4	38	2	Back rails	7
1 by 4	28.5	2	Back rails	8
1 by 4	7.5	2	Back vertical supports	7
1 by 4	6.5	1	Back vertical supports	8
1 by 4	31.5	8	Side Inserts	9, 10 and 11
1 by 4	50	1	Top	12
1 by 4	15.5	2	Drawer slide supports	8
1 by 6	50	3	Top	13, 14 and 15
1 by 8	19.25	4	Small Drawers	2 from board 16 and 2 from board 17
1 by 8	14	4	Small Drawers	17
1 by 8	42.5	4	Large Drawers	2 from board 18 and 2 from board 19
1 by 8	14	4	Large Drawers	16
1 by 10	21.75	2	Front for small drawer	21
1 by 10	45	2	Front for large drawer	20
¼ inch ply			Cut for bottom of drawers depending on whether using inset bottoms or fixed to bottom.	

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¼ inch ply	22.5 by 30.5	2	For back panel (fitted from inside)	
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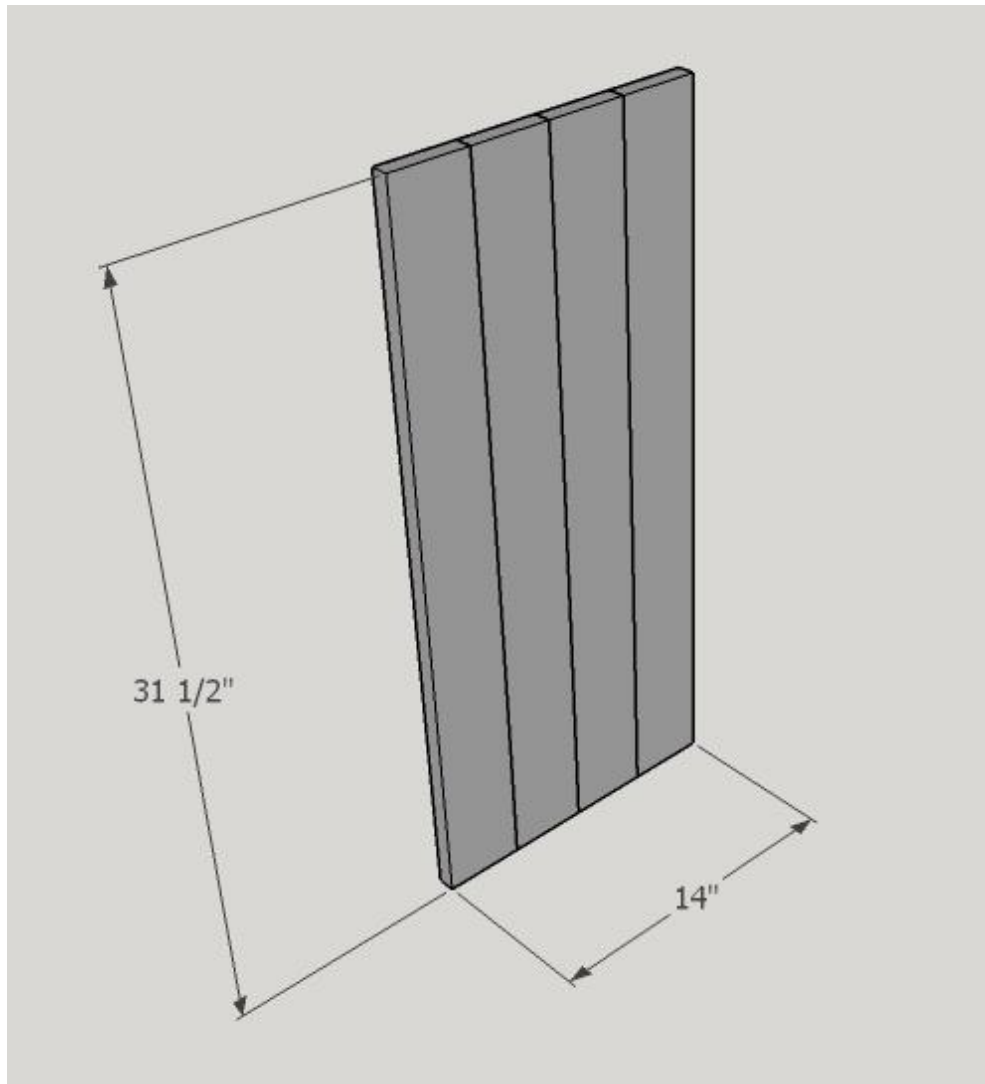
## Step 1 – Make the two Side panel inserts

I made the inserts for the sides from 4 four pieces of 1 by 4 and I slightly routed the edge at 45 degrees.

If you don't have a router and still want some detailing to make the sides looked paneled then just sand the edges of each piece slightly round before joining them together.

Put the pocket holes on the inside and also put a pocket hole in the top and bottom of each piece to fix to the top and bottom rails.

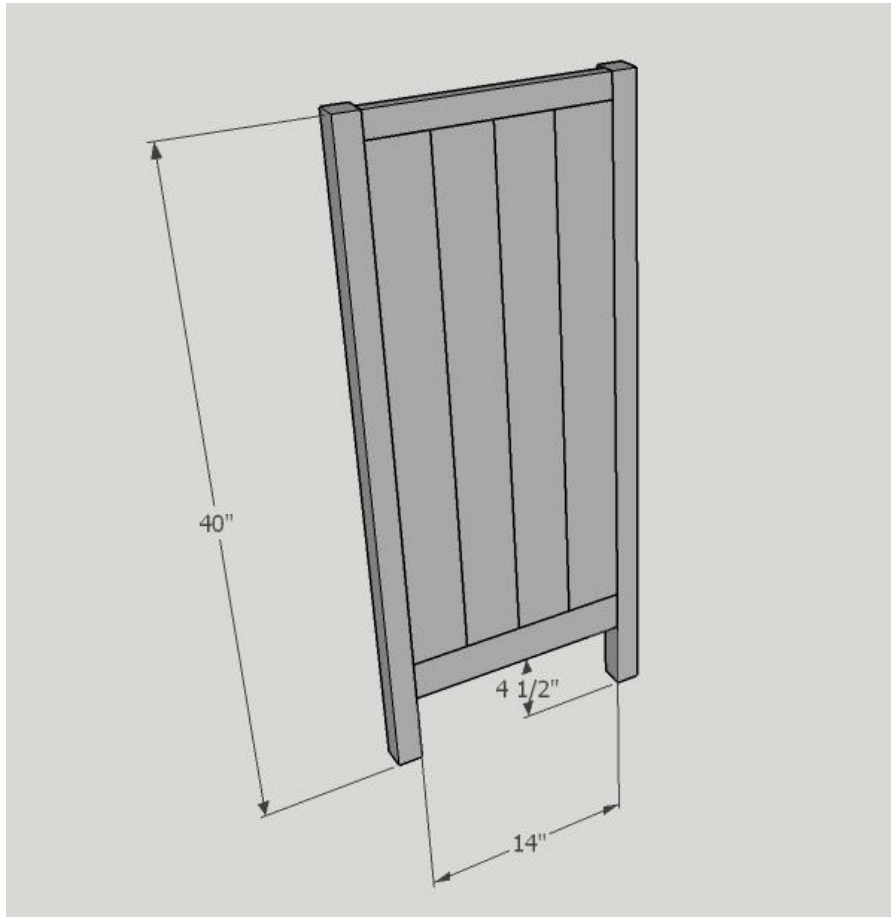
If you prefer you can use a piece of plywood for a solid panel look instead.



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## Step 2– Make the two Side frames

Make the side frame by attaching the two 40 inch legs and the 14 inch 1 by 2 as the top rail and the 14 inch 1 by 3 for the bottom rail.

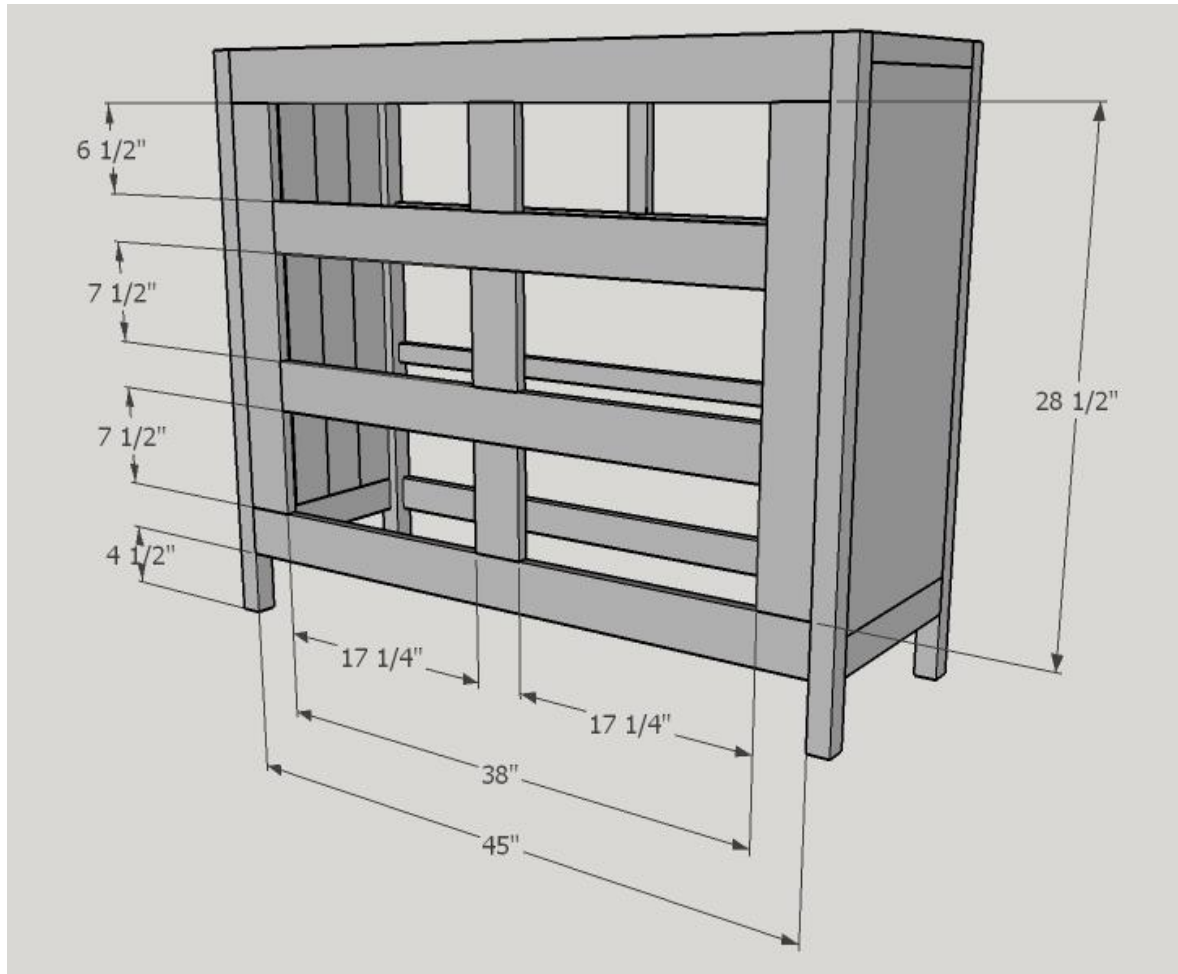


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## Step 3 – Add the back rails

Add the 1 by 4 pieces of back rail as shown. I did the back first as the pieces are thicker and sturdier than the front which has thinner pieces.

Make sure the pocket holes are on the inside. The pocket holes should be drilled on the narrow part of each piece.

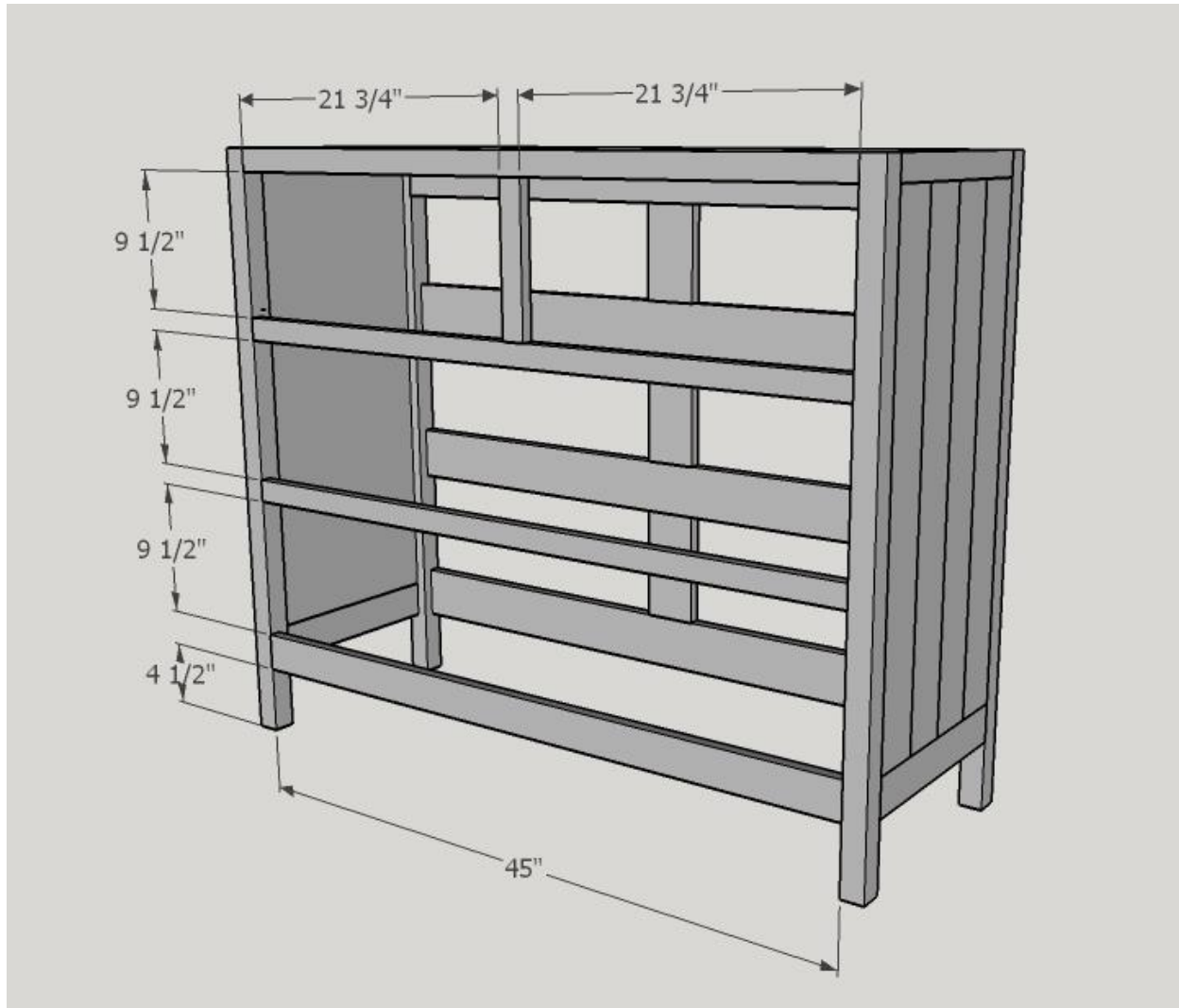


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## Step 4 – Add the front rails

Add the 1 by 2 and 1 by 3 front rail pieces as shown.

Make sure the pocket holes are on the inside. The pocket holes should be drilled on the narrow end part of each piece.





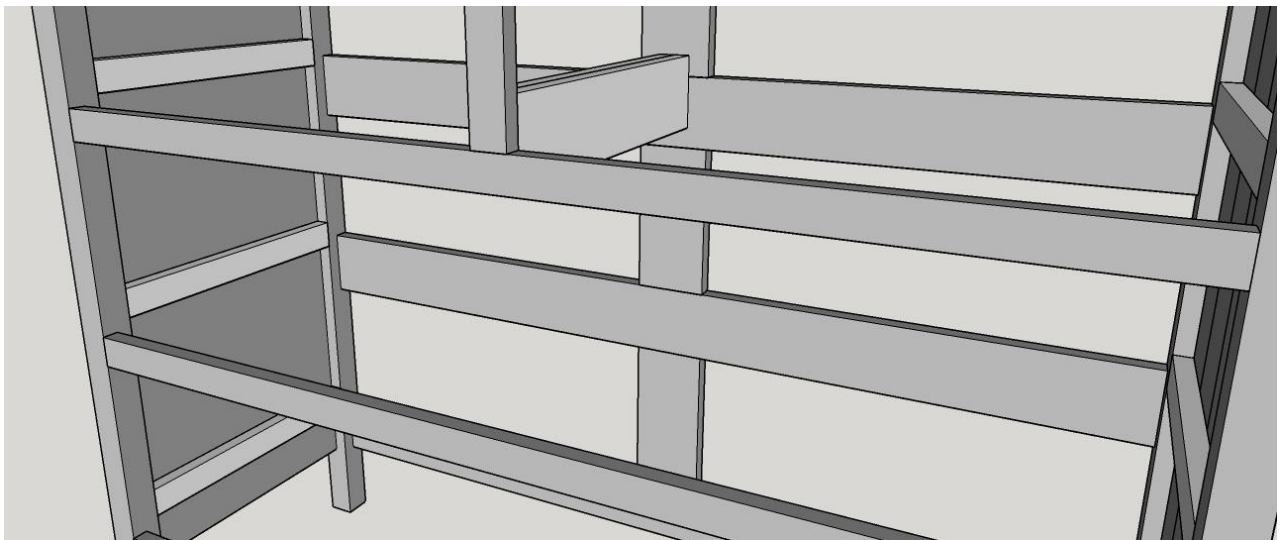
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## Step 5 – Add drawer slide rails

Add the drawer slide rail supports. I placed the bottom of the support rail level half an inch above the top of the front horizontal support rail.

The ones on the outside are the 14 inch pieces of 1 by 2.

For the drawer slide supports between the top two drawers I used 15 ½ inch pieces of 1 by 4. The reason is that if you use 1 by 2, then where it fixes you would be screwing into the pocket screw holes of the small vertical support.



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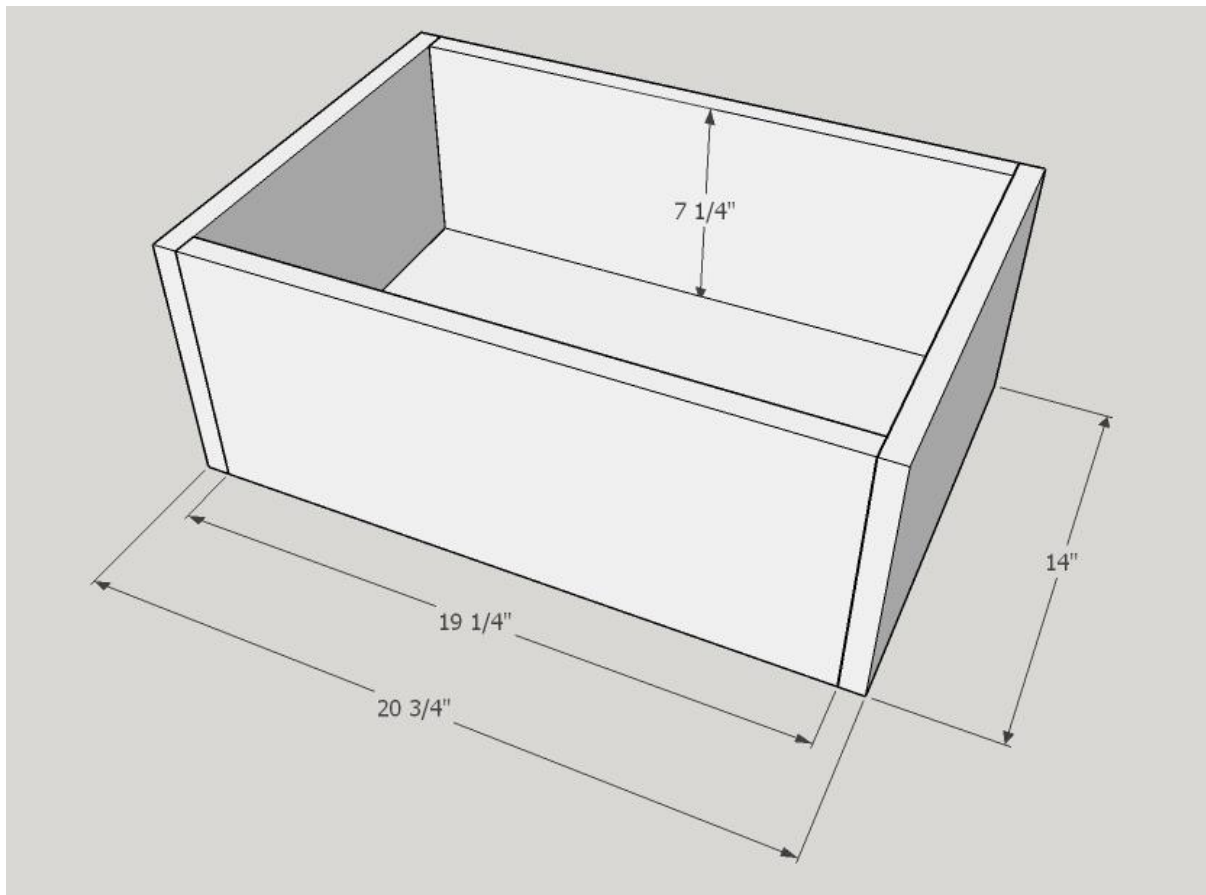
## Step 6 – Make the Small Drawers

Drill pocket holes in the both ends of the 19 ¼ inch length drawer pieces.

Join the 14 inch pieces to the 19 ¼ inch lengths to form the drawers.

I routed the sides to fit a ¼ inch plywood base. I also left enough space below the base to fix a scrap piece of ¾ inch thick 1 by 6 as a support as shown in step 7.

Fit the drawer slides to the bottom of the drawers as well.



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## Step 7 – Fit drawer base support (optional)

I cut a scrap piece of 1 by 6 to fix under the drawer base just to add some strength.



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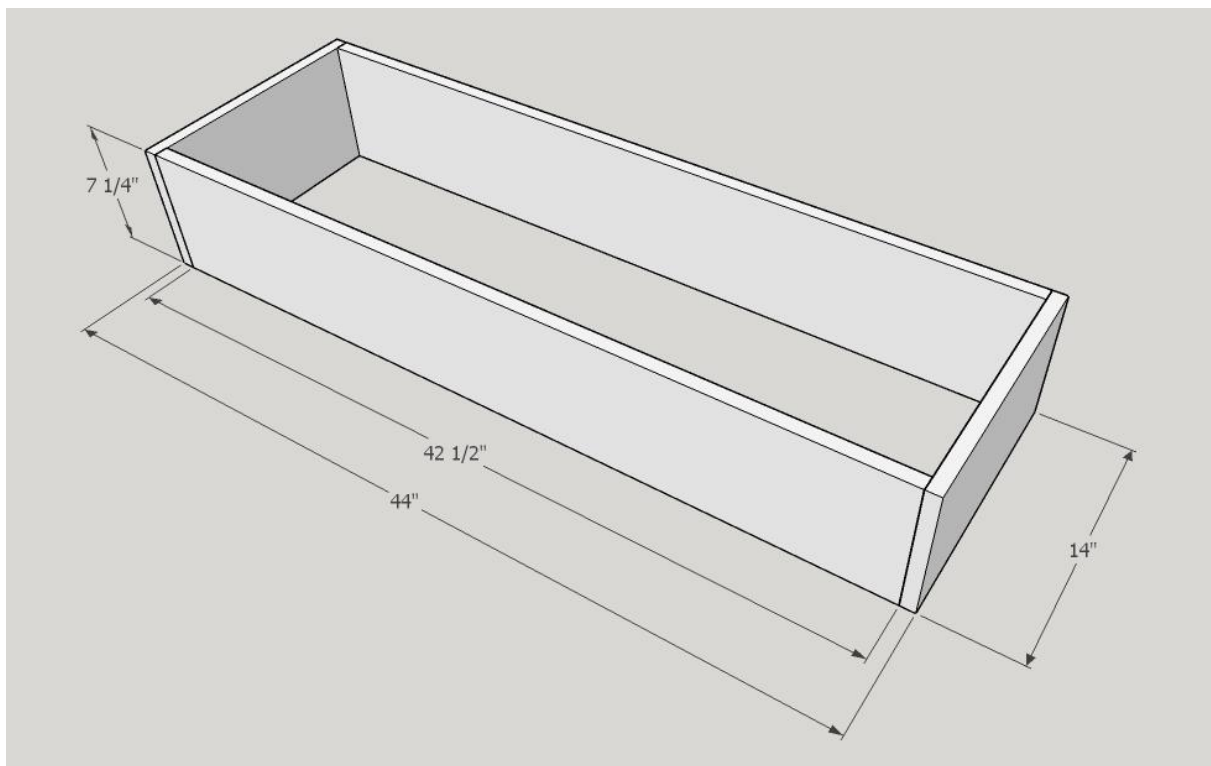
## Step 8 – Make the larger drawers

Drill pocket holes in the both ends of the 42 ½ inch length drawer pieces.

Join the 14 inch pieces to the 42 ½ inch lengths to form the drawers.

As with the small drawers I routed the sides to fit a ¼ inch plywood base. I also left enough space below the base to fix two scrap pieces of ¾ inch thick 1 by 6 as supports. These are big drawers and so really need some support underneath. If you don't have a router I would suggest using 1 by 6 to make a base to insert into the drawer and fix with pocket hole screws from underneath.

Fit the drawer slides to the bottom of the drawers as well.



## Step 9 – Fit the drawer slides to frame of cabinet

Follow the instructions of your slides to fit them to the sides of the cabinet. Usually there should end up being half an inch gap between the bottom of the drawers and top of the rail underneath it.

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## Step 10 – Fit the drawer fronts

The small drawer fronts are the 1 by 10 pieces measuring 21 ½ inches long (1/4 inch narrower than the space they are fitting). Measure and cut to fit your project though.

The large drawer fronts are the 1 by 10 pieces measuring 44 ¾ inches long (1/4 inch narrower than the space they are fitting). Measure and cut to fit your project though.

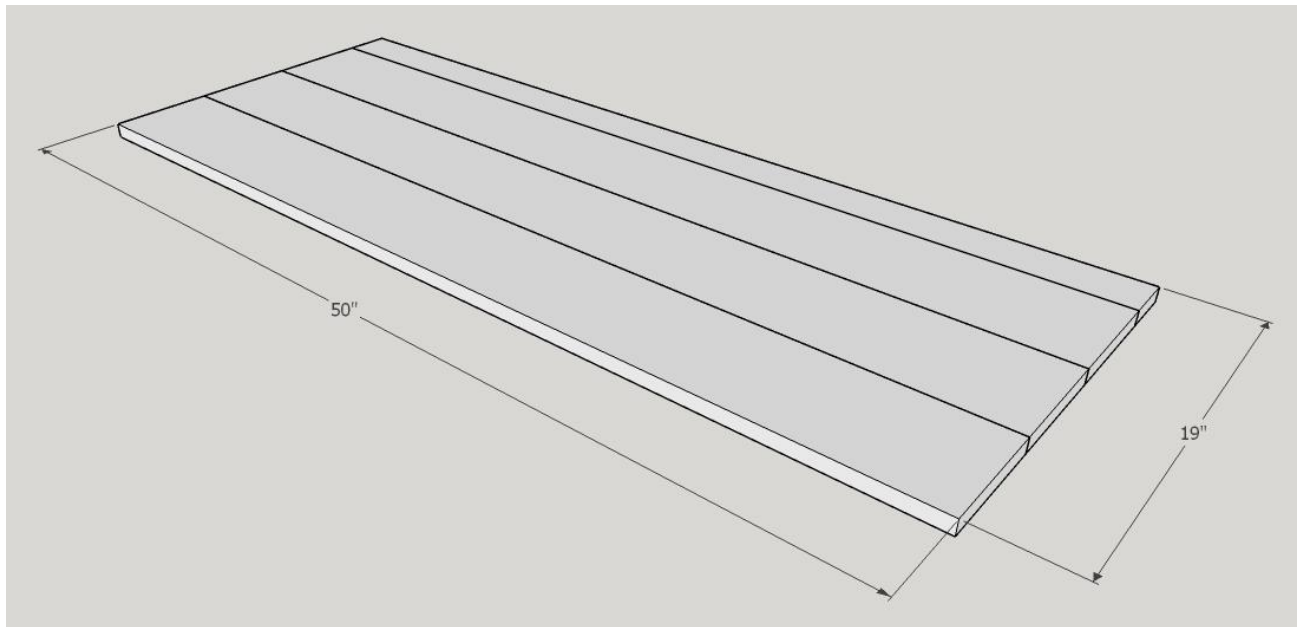
Fit the drawer fronts ensuring equal gap at top and outer edge for both.

Drill two holes through the inner drawer front and then fix the outer drawer front by screwing through the inner drawer front into the outer drawer front using 1 ¼ inch screws.

Tip clamp the drawer front in position when happy with the spacing and then screw it in place.

## Step 11 – Make the top

Make the top from the three 1 by 6 pieces measuring 50 inches long and the 1 by 4 measuring 50 inches long.



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## Step 12 – Fit the back panels

Fit the two back panels from the inside. I suggest you leave at least half an inch gap around the edge and use ¾ inch finishing nails to fix it. Dimensions given in plan allow for 1 inch overlap around each side. Make sure the back panel does not cover and allows access to the pocket hole screws that will be used for fixing the top.

## Step 13 – Fit the top

Drill pocket holes on the side and back panels facing upward for screwing the first top layer to with 1 ¼ inch pocket hole screws.

Drill through the top of the front 1 by 2 rail so the top can be screwed on from underneath.

On the front edge drill holes through the first layer of top and then screw through the first top layer into the rail with 1 ¼ inch wood screws through the top. The screws will be hidden by the top layer of the top.

Place the top with the good side down and then place the upturned cabinet on top. Make sure you have equal gap all around and then fix the sides and back with 1 ¼ inch pocket hole screws and the front edge with 2 inch wood screws through the front rail.

## Step 14 – Finish

Sand well to smooth our joints and remove any wood glue residue.

Apply Pre stain and your choice of color or paint as desired. The example below was finished in Minwax Classic Gray and Satin Poly.

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## Step 15– Hardware

Add hardware of your choice to the drawers (you will need to temporarily remove the front drawer parts).