

3x3 Custom | SawStop | MODERN CURVED DESK

# MODERN CURVED DESK

WITH HIDDEN STORAGE & ROLLING FILE CABINET

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## FINAL DIMENSIONS

75" Long x 29" Wide x 30" High



BROUGHT TO YOU BY:



## MATERIALS LIST

Amount	Material
4	2x8 @ 10' Long
2	2x6 @ 8' Long
2	4x8 Sheet of 3/4" Plywood
1	4x4 Sheet of 1/2" Plywood
1	2x4 Sheet of 1/4" Plywood

This Desk was built using a SawStop 3HP PCS. While this is a simple build, there are a few advanced techniques that will transform the look of this project. To get the curved end on the desk you will need to make a series of kerf cuts on the table saw. This is a really easy and effective way to add curved shapes to your projects!

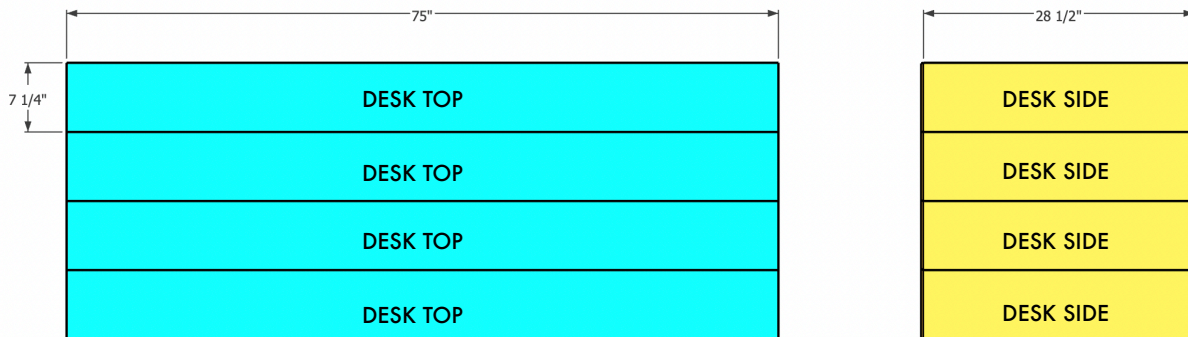
The Rolling File Cabinet in this build is optional. If you want to omit it, you do not need the 1/2" or 1/4" plywood.

The joinery methods on this build are up also up to you! You can use pocket holes, dowels, dominos, biscuits, dovetails, mortise and tenon, etc. Options where applicable will be listed at each step.

Let's begin!

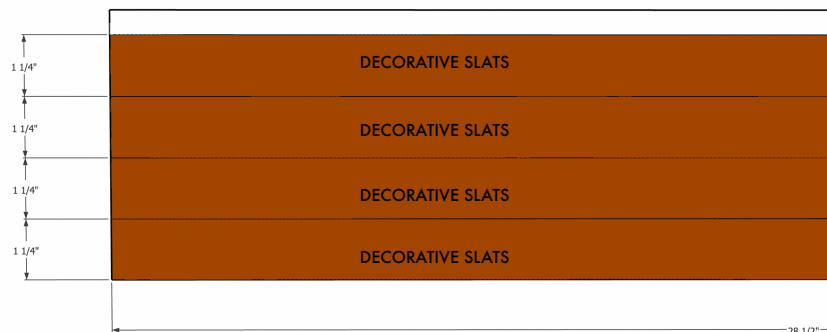
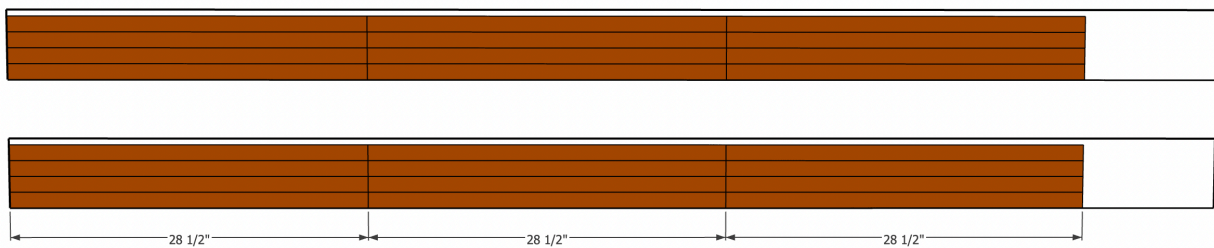
## CUT LIST

MATERIAL	DESCRIPTION	QTY	DIMENSION
<b>2x8 @ 10' Long</b>	DESK TOP *	4	75" x 7-1/4" x 1-1/2"
<b>2x8 @ 10' Long</b>	DESK SIDE *	4	28-1/2" x 7-1/4" x 1-1/2"



\*Cut these oversize, then trim to final size after glue up

MATERIAL	DESCRIPTION	QTY	DIMENSION
<b>2x6 @ 8' Long</b>	DECORATIVE SLATS	24	28-1/2" x 1-1/4" x 1-1/2"



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MATERIAL	DESCRIPTION	QTY	DIMENSION	PART
3/4" Plywood	CURVED LEG	2	65" x 28-1/2"	A
3/4" Plywood	CURVE SUPPORT	2	23" x 11-1/2"	B
3/4" Plywood	HIDDEN STORAGE BACK *	1	27" x 16-1/4"	C
3/4" Plywood	HIDDEN STORAGE SIDES	2	27" x 6-1/4"	D
3/4" Plywood	HIDDEN STORAGE FRONT *	1	28-1/2" x 24-5/8"	E
3/4" Plywood	HIDDEN STORAGE DOOR **	1	15-1/4" x 20-1/4"	F
3/4" Plywood	HIDDEN STORAGE TOP & BOTTOM	2	16-1/4" x 5-1/2"	G
3/4" Plywood	HIDDEN STORAGE MIDDLE SHELVES *	2	15-1/2" x 5-1/4"	H
3/4" Plywood	FILE CABINET TOP & BOTTOM	2	19" x 18-3/4"	I
3/4" Plywood	FILE CABINET SIDES	2	22-3/4" x 18-3/4"	J
3/4" Plywood	FILE CABINET LARGE DRAWER FACE *	1	17-1/4" x 11-1/2"	K
3/4" Plywood	FILE CABINET SMALL DRAWER FACE *	2	17-1/4" x 5-1/2"	L
1/2" Plywood	FILE CABINET BACK *	1	23-1/2" x 18-1/4"	M
1/2" Plywood	FILE CABINET LRG DRAWER SIDES	2	17" x 10"	N
1/2" Plywood	FILE CABINET LRG DRAWER FRONT & BACK	2	15-1/2" x 10"	O
1/2" Plywood	FILE CABINET SML DRAWER SIDES	4	17" x 4"	P
1/2" Plywood	FILE CABINET SML DRAWER FRONT & BACK	4	15-1/2" x 4"	Q
1/4" Plywood	DRAWER BOTTOMS *	3	16" x 16-1/2"	R

\* Do not cut until main structure is assembled. Actual dimensions will vary slightly on these parts due to varying plywood thickness.

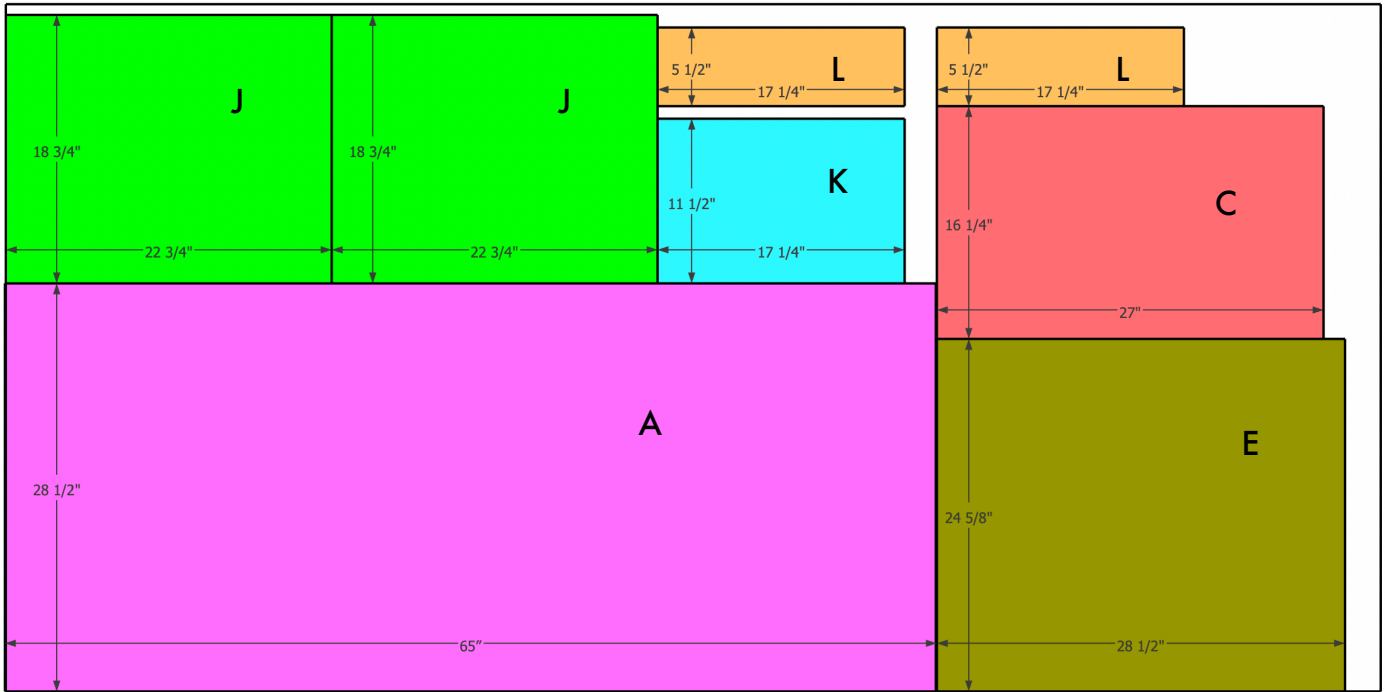
\*\* Hidden Storage Door will be cut from the Hidden Storage Front.



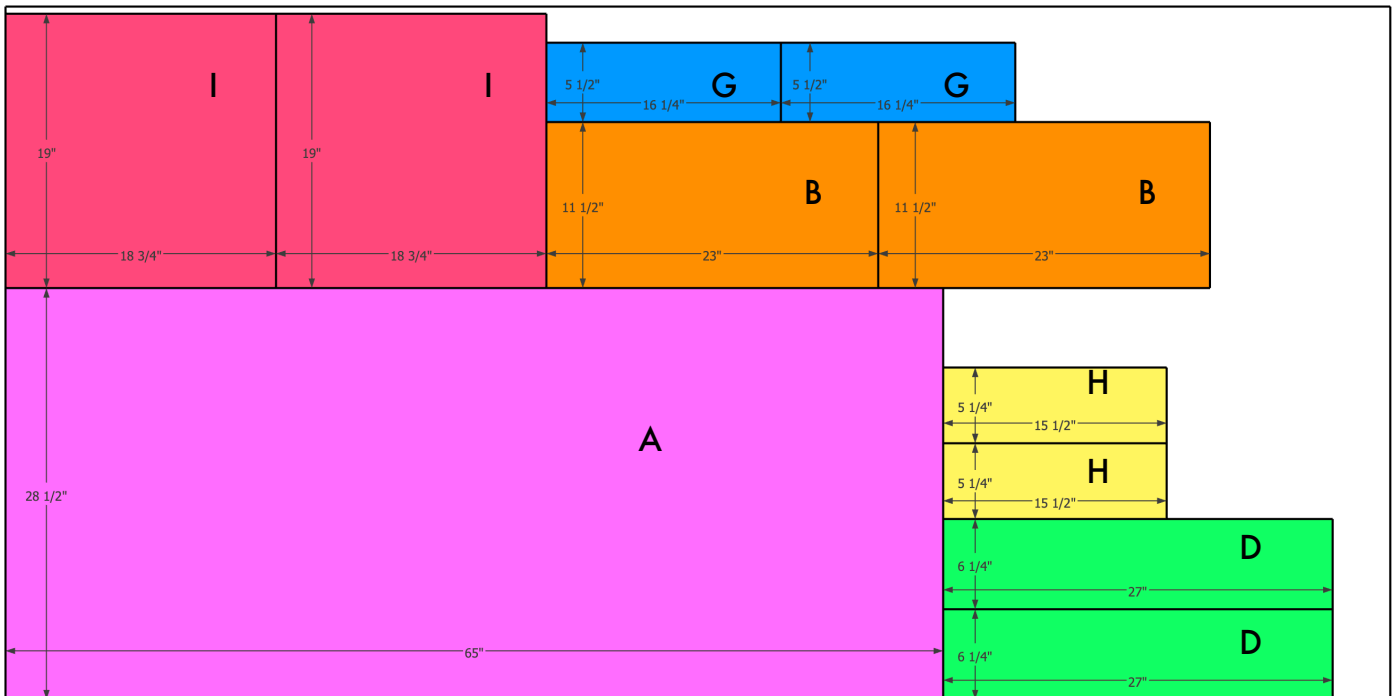


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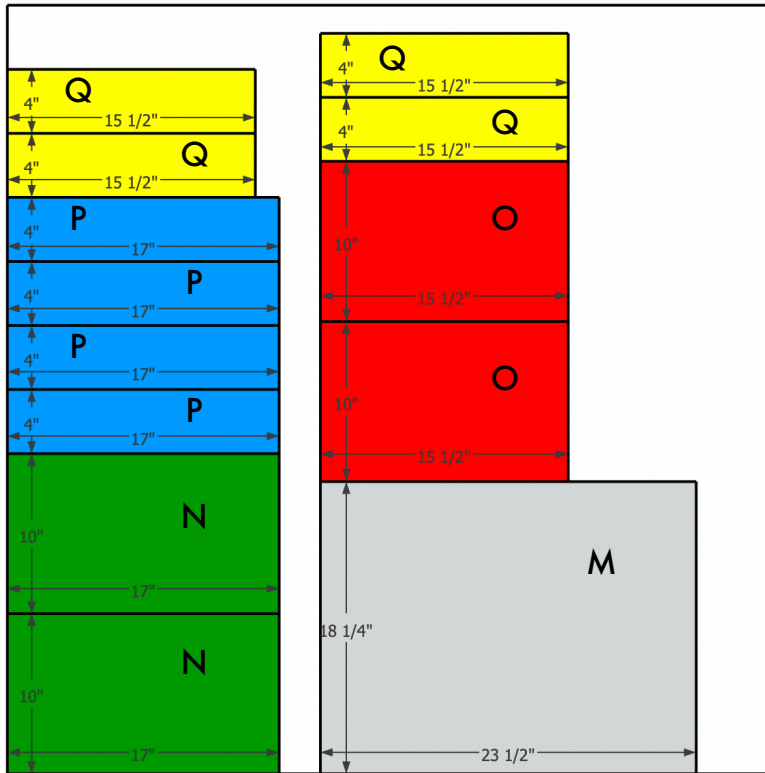
## 3/4" Plywood #1



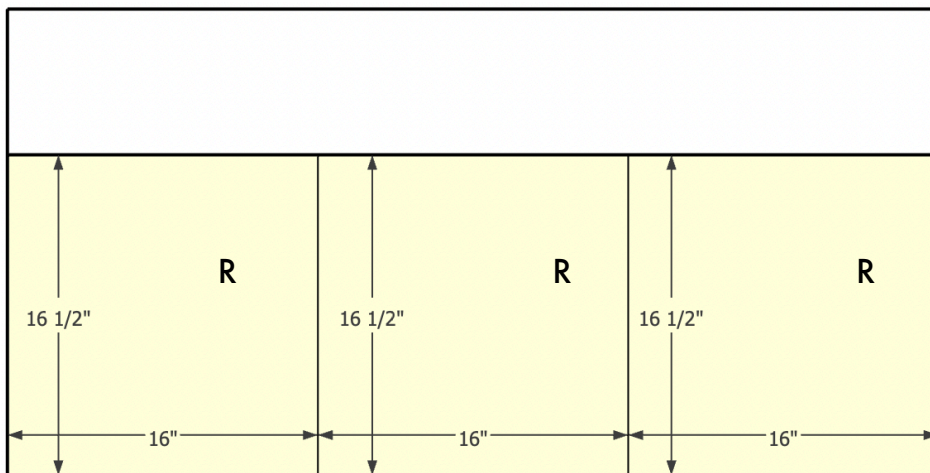
## 3/4" Plywood #2



### 1/2" Plywood



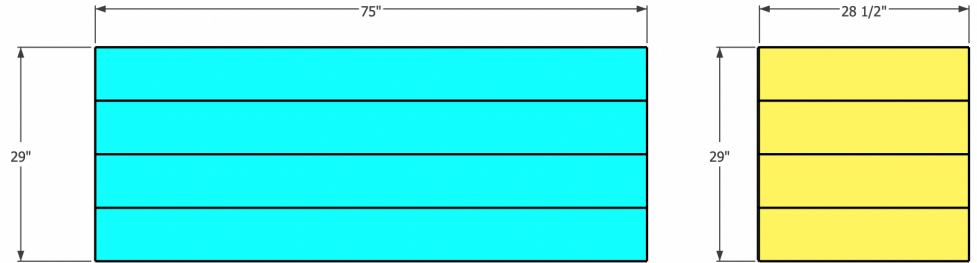
### 1/4" Plywood



## STEP 1

### Glue up Desk Top & Side

Using the 2x8 material, cut the parts to length slightly oversize, then glue them up to create 29" wide panels. Once glued up, trim them to final dimension.

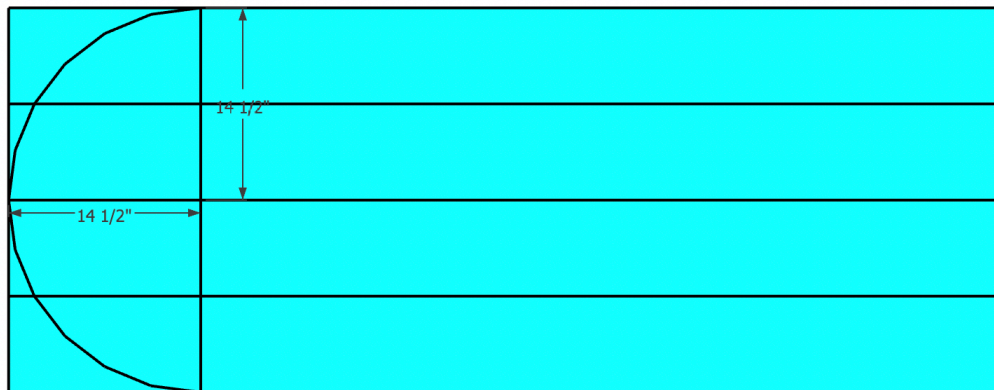


## STEP 2

### Cut Curve on Desk Top

Cut a curve on one end of the Desk Top with a radius of 14-1/2". Marking 14-1/2" from both the edge and end of the desktop you will find the pivot point to cut an arc.

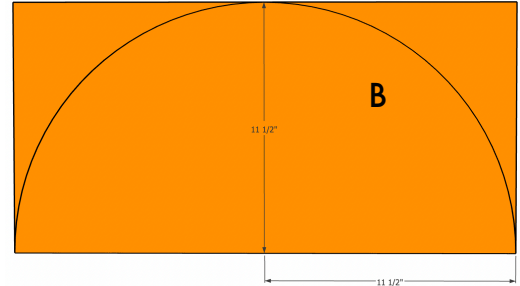
You can cut this arc with a circle cutting jig on a router or jigsaw.



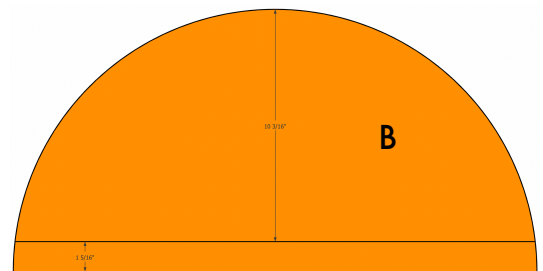
## STEP 3

### Make Curved Leg

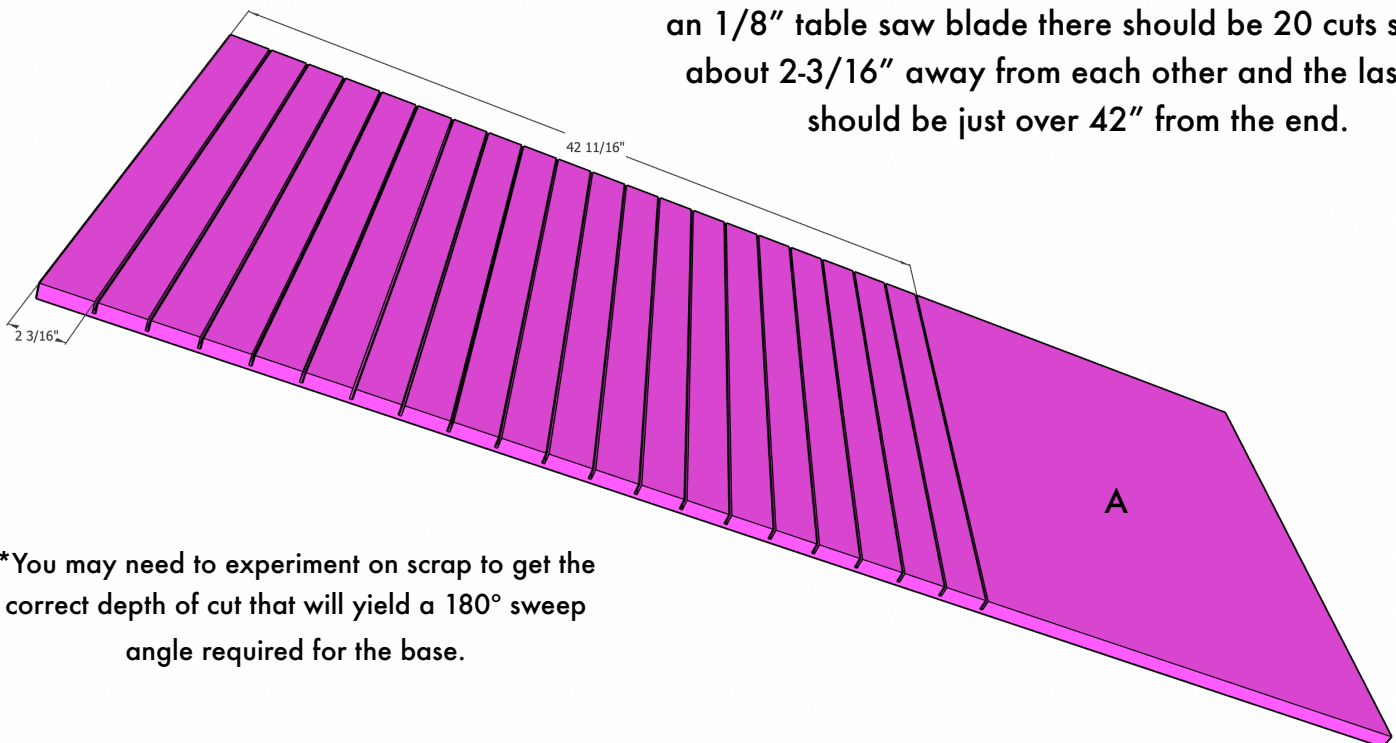
A) Cut the Curve Supports (Part B) to size and cut an 11-1/2" radius curve on the end using a circle cutting jig with a router or jigsaw.



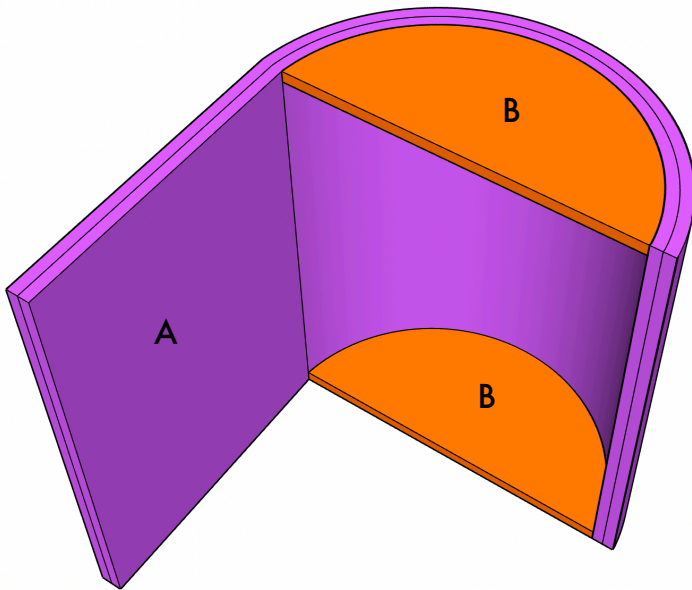
B) Next, trim off an 1-5/16" from the straight edge so the semicircle is 10-3/16" from the edge.



C) In order for the plywood to bend, a series of cuts need to be made on both Curved Legs (Part A). If using an 1/8" table saw blade there should be 20 cuts spaced about 2-3/16" away from each other and the last one should be just over 42" from the end.

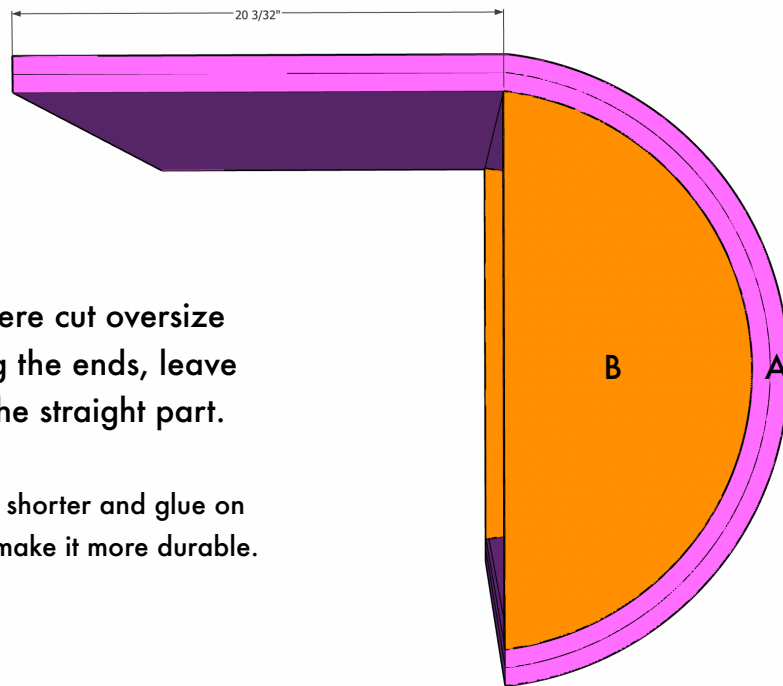


\*You may need to experiment on scrap to get the correct depth of cut that will yield a 180° sweep angle required for the base.



D) Bend the Curved Legs around the Curve Supports and glue them in position.

\*You may use screws or brads to hold the plywood to shape since it will be covered in a later step.



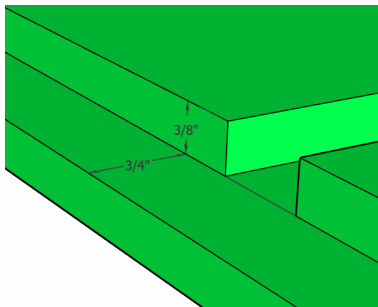
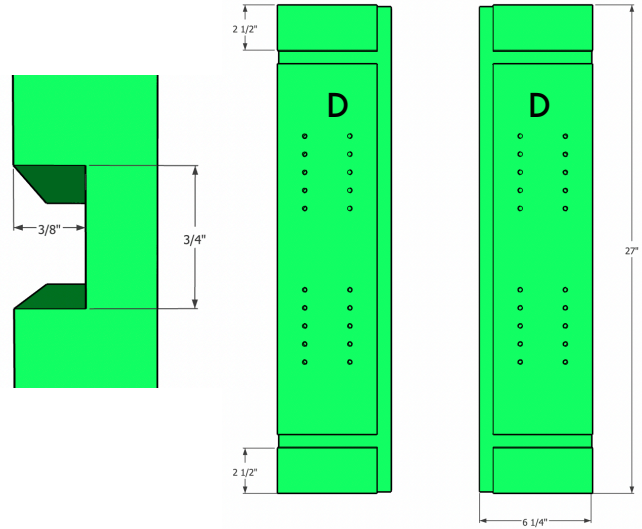
E) The Curved Legs were cut oversize before. When trimming the ends, leave around 20-3/32" of the straight part.

\*You can also trim this a bit shorter and glue on hardwood edge banding to make it more durable.

## STEP 4

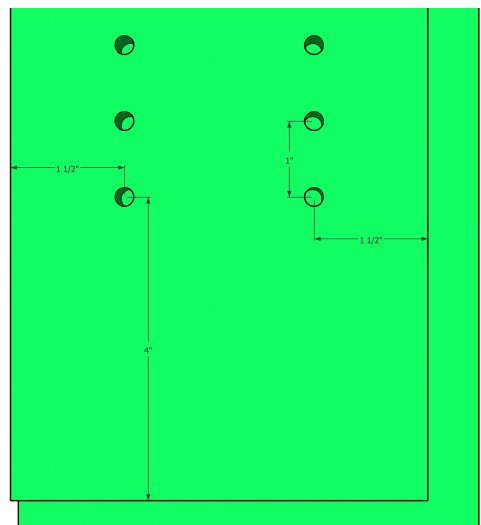
### Build Hidden Storage

A) Mill the Hidden Storage Sides (Part D) and cut 3/8" deep x 3/4" wide dados 2-1/2" from the top and bottom of both parts.



B) Cut 3/4" Wide x 3/8" deep rabbets on one edge to fit the back panel

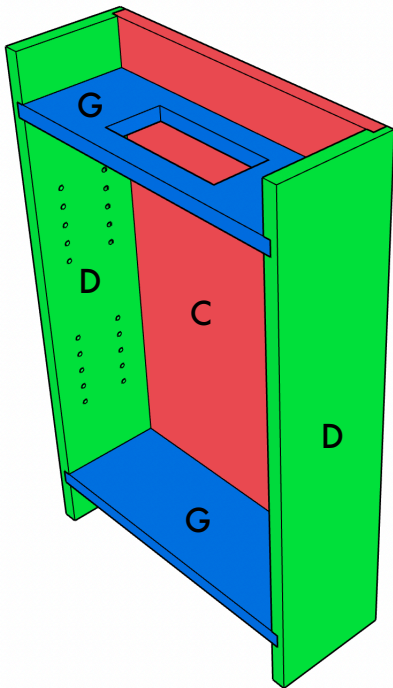
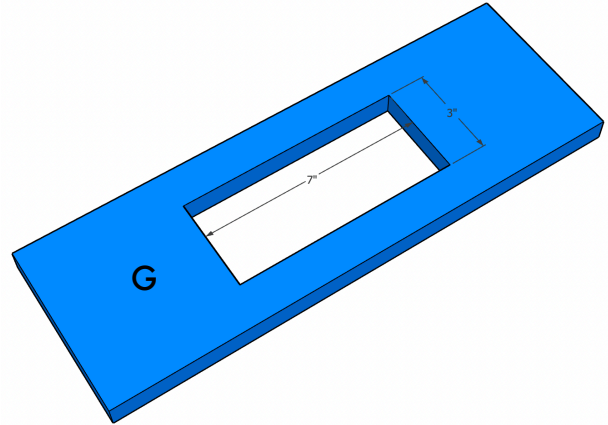
C) While the Sides are still easily accessible, drill 1/4" holes for adjustable shelf pins. Space the holes 1-1/2" away from the edges (including rabbet), 4" away from dados and 1" apart from each other.





D) Cut a 7" x 3" opening in the Hidden Storage Top (Part G).

\*This is going to create access to attach the base to the Desk Top. You can leave it open like this or create a panel that attaches with magnets for more hidden storage!

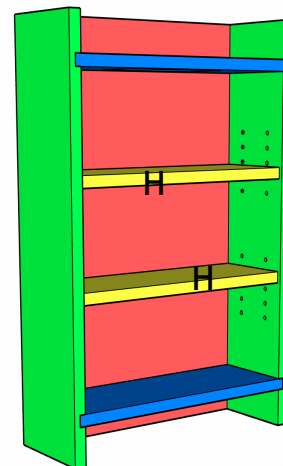


E) Glue and Screw the Hidden Storage Back (Part C) and the Hidden Storage Top & Bottom (Part G) into the dados and rabbets cut on the Hidden Storage Sides (Part D).

\*The back and sides of this will all be hidden, so no need to cover up any screw holes or use any other hidden joinery method.

F) Now, cut the Middle Shelves (Part H) to size based on actual cabinet opening.

\*These shelves are narrower to make room for the "Push to Open" mechanism.



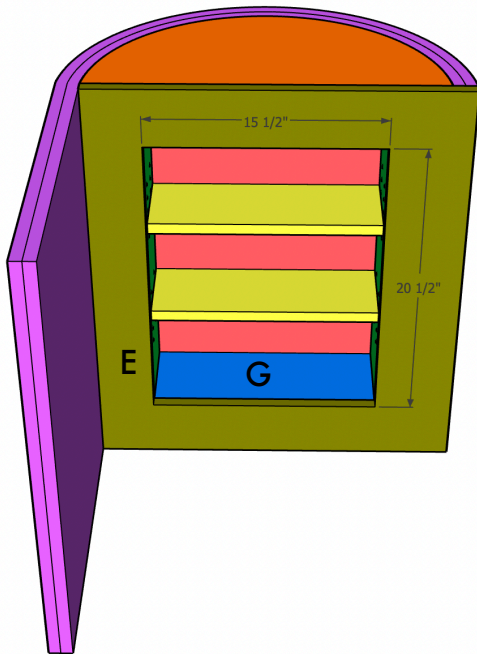
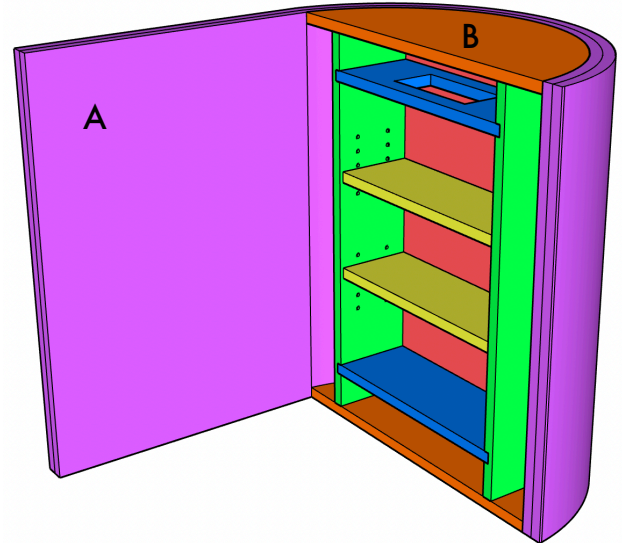
## STEP 5

### Attach Hidden Storage to Curved Leg

A) Using screws, attach the Hidden Storage Cabinet to the Curved Leg through the Curved Supports (Part B).

\*Again, this will be covered up, so no need to get fancy here, just countersink the holes so the screws will be flush with the Curved Supports.

B) Using the actual assembly as a guide, cut the Hidden Storage Front (Part E) to size.



C) Using the actual dimensions of your Hidden Cabinet, cut the Hidden Storage Door (Part F).

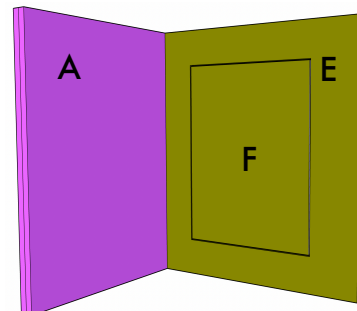
\*The Hidden Storage Front, should completely overlay the Hidden Storage Top & Bottom (Part G)

\*You can cut this opening by doing a plunge cut on the table saw

D) Attach the Hidden Storage Front to the Curved Leg Assembly. This will be visible since it is the outer face. You can attach it using, brads nails, plugged up screws or hidden joinery like dowels or dominos.

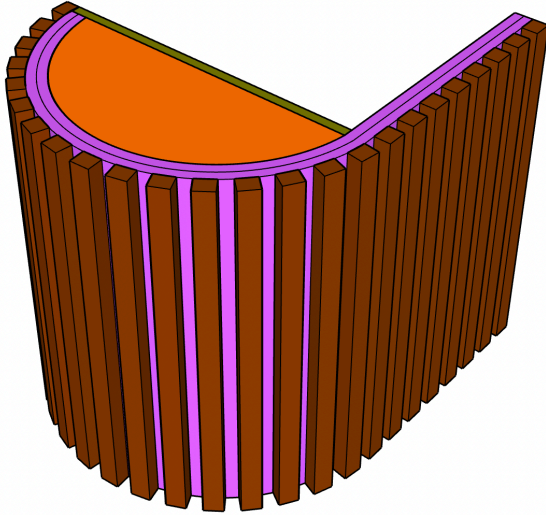
E) Install the Hidden Storage Door (Part F) using concealed hinges and an optional push to open mechanism.

\*You can also opt to leave the door off and just have open shelves.



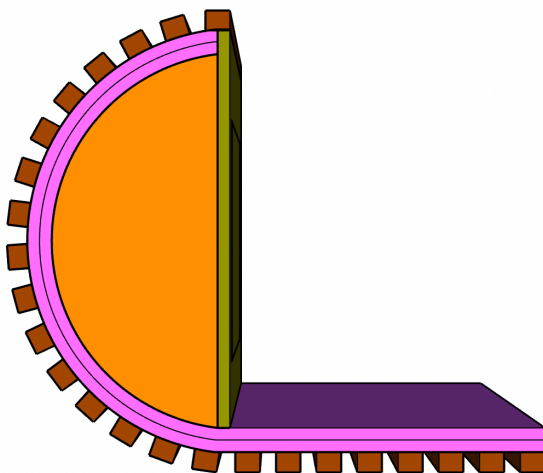
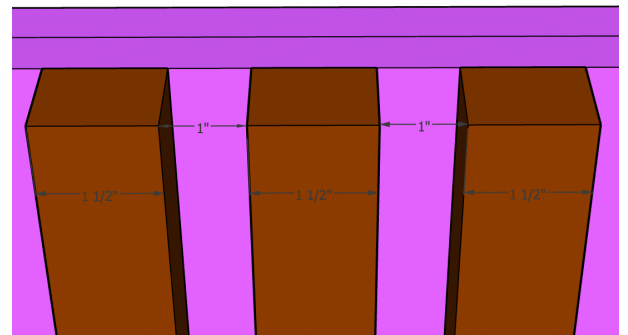
## STEP 6

### Decorative Slats



Mill the Decorative Slats to 1-1/2 x 1-1/4" and attach them to the curved leg with a 1" spacing.

As seen in the picture to the right, the slats should be placed with the 1-1/2" face against the Curved Leg.



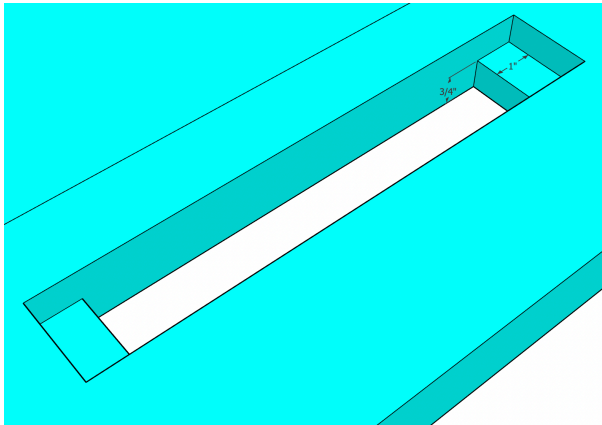
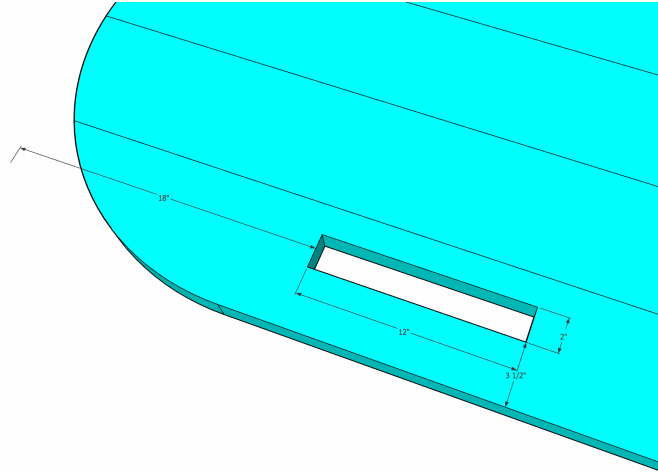
To get the slats to sit flush against the curve, you may need to flatten some of the areas on the Curved Leg or create a curve on the inside face of the slats.

## STEP 7

### Cable Management

A) Cut an opening in the Desk Top to the dimensions listed.

You can cut this out with a circular saw, jigsaw, handsaw or router.



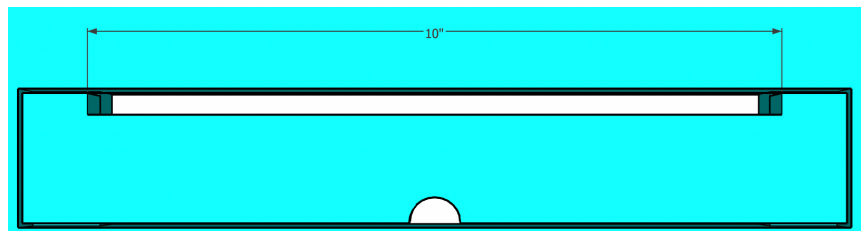
B) Add 3/4" x 1" blocks to either end of the opening creating a lip inside of that opening.

The cable management cover will rest on this lip.

C) Use a scrap piece of material to make the cable management cover.

Mill this to be slightly smaller than the opening with a 10" x 1/4" notch so cables can pass through.

Also use a forstner bit to make a finger pull for easy access on the opposite side.



\* This step is done after the Curved Leg is built to make sure this opening is placed in the correct spot, please use your actual Curved Leg as a guide for this placement.

## STEP 8

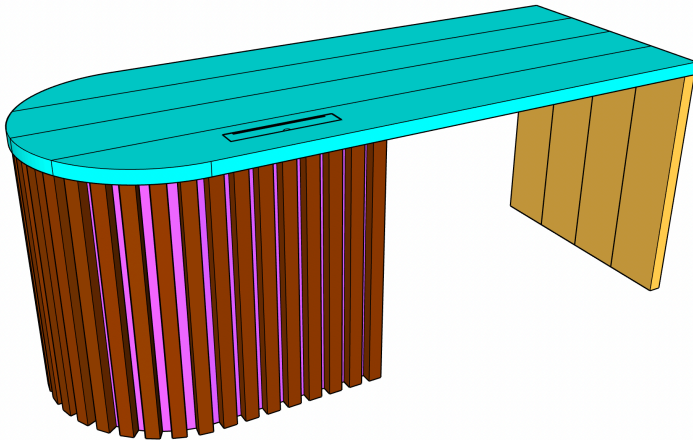
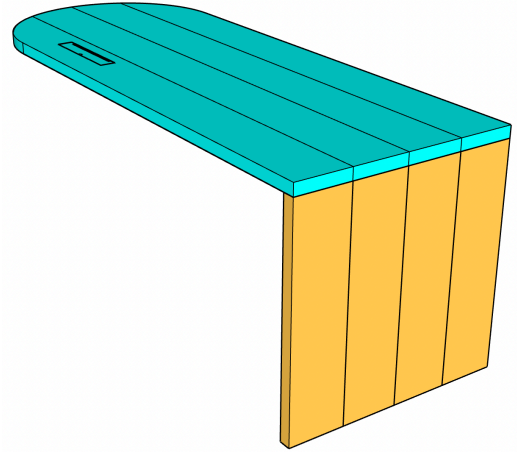
### Assemble All Parts

#### A) Attach Desk Side to Desk Top.

\*This is where you can get creative...

There are many ways to attach these parts, dowels or dominos are a great easy option.

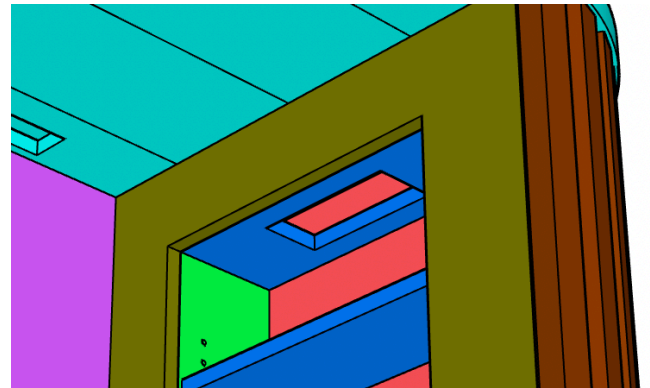
It may also be fun to do more advanced joinery techniques like a miter, box joints or dovetails. If you choose do these techniques, please add some length to your parts to accommodate that joinery.



Regardless of what method you choose for the long part of the curve, you can use the access hole cut during step 4.D to reach in and drive screws through oversized holes toward the middle/end of the table.

#### B) Attach Curved Leg to Desk Top.

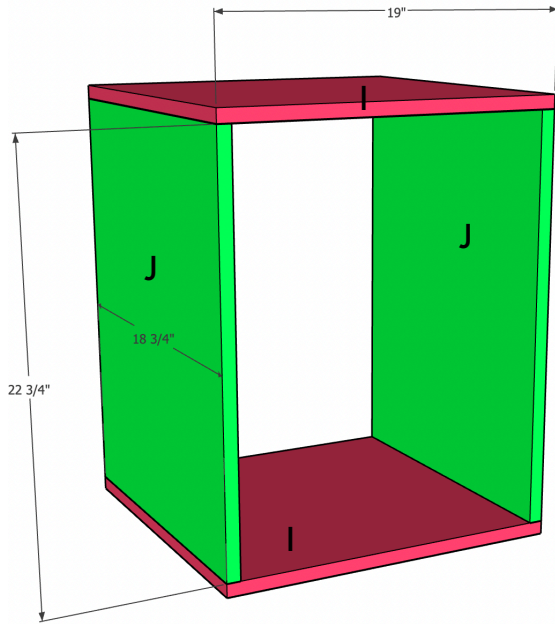
\*There are multiple ways to do this...  
Z-clips, figure 8 fasteners, shop made buttons, screw in an oversized hole on an attached stretcher.





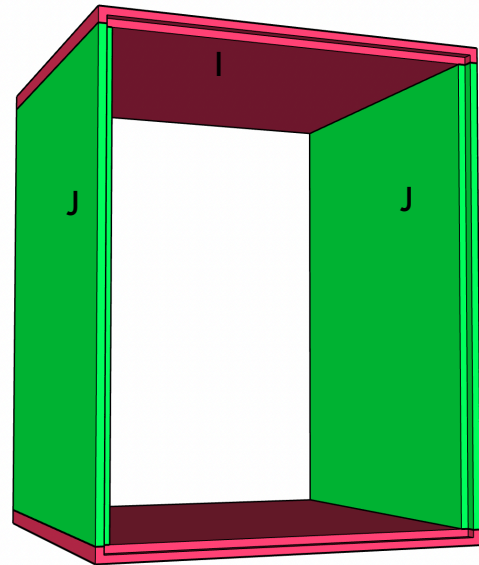
## STEP 9

### **Build (Optional) Rolling File Cabinet**

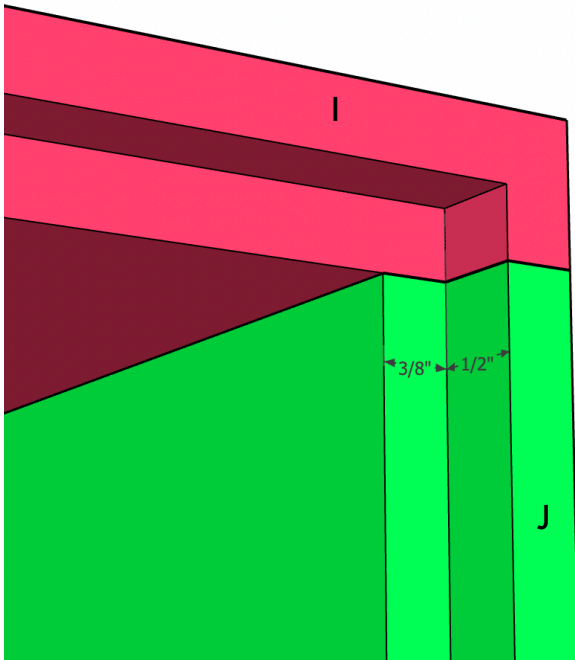


A) Attach File Cabinet Top (I) and Bottom to File Cabinet Sides (J).

\* Multiple Joinery methods could be used here...  
Plugged up screws through the top and bottom,  
pocket holes from the inside, dowels, dominos,  
biscuits...

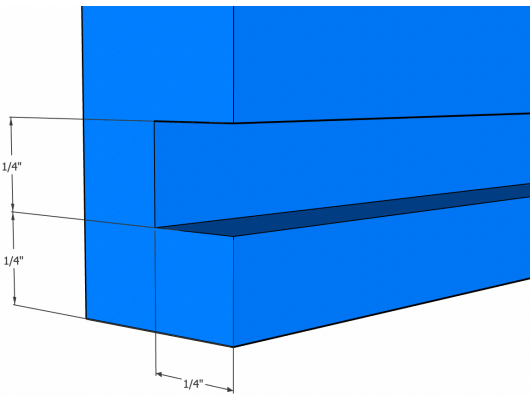
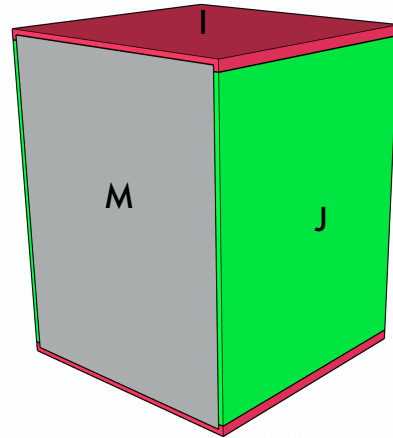


B) Route a 3/8" wide 1/2" deep rabbet around the entire inside back to accept the back panel.



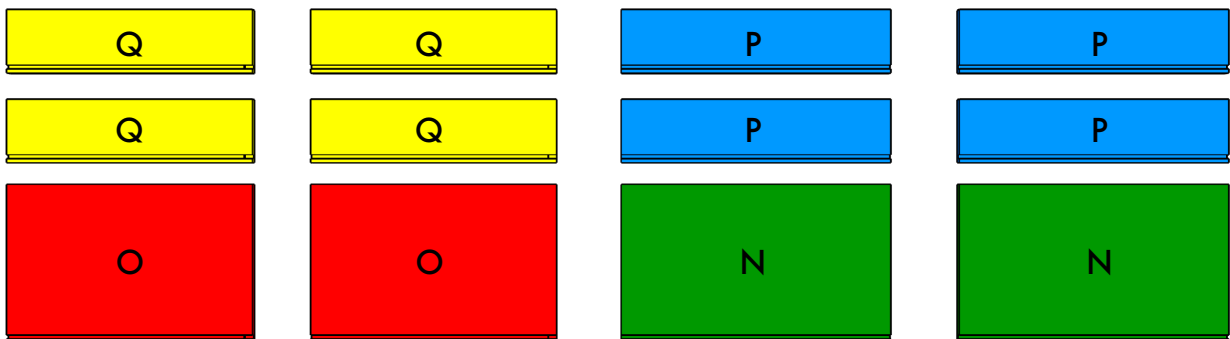


C) Cut Back Panel (M) to size based on actual cabinet dimensions and glue it in the rabbet.



D) Build the Drawers.

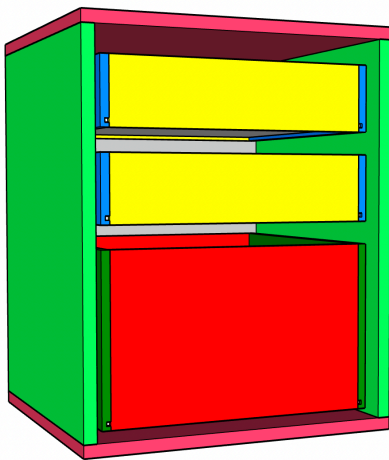
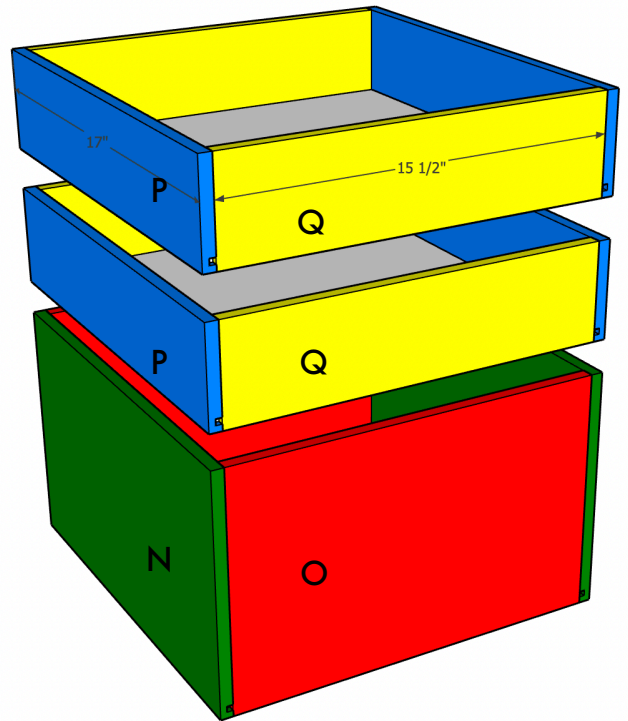
Cut 1/4" x 1/4" grooves on all the Drawer Sides, Fronts and Backs (Parts N, O, P, Q) 1/4" up from the bottom.



E) Assemble the drawers.

Cut the Bottom Panels (Part R) to size based on actual drawer and groove sizes and assemble the drawers with the panel in the groove on all parts.

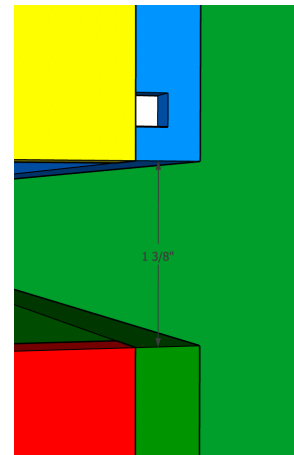
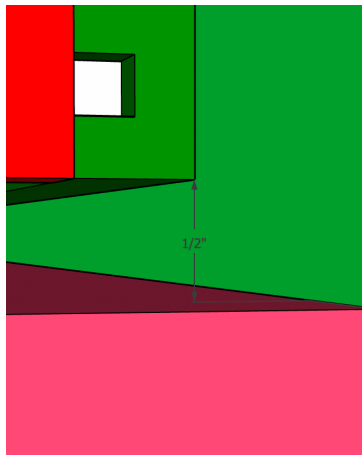
\*You can use pocket holes on the Drawer Fronts and Backs to assemble them since the drawer face will hide the pocket holes.



F) Install the drawers into the cabinet.

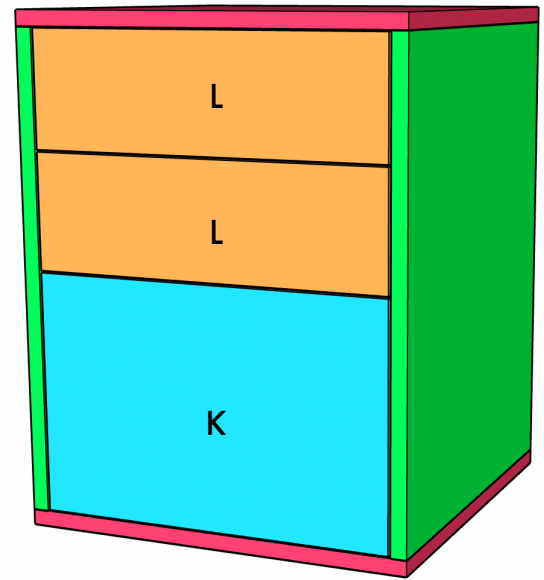
The bottom large drawer should be spaced 1/2" from the bottom of the cabinet.

The smaller drawers should then be spaced 1-3/8" from the bottom drawer and each other.



G) Based on actual cabinet dimensions, cut the Drawer Faces (Parts K & L) to size and attach them to the drawers.

\*You should have just over 4" of space between the top of this File Cabinet to the bottom of the desk, so you can use 2" or 3" casters.



And it's done!

