



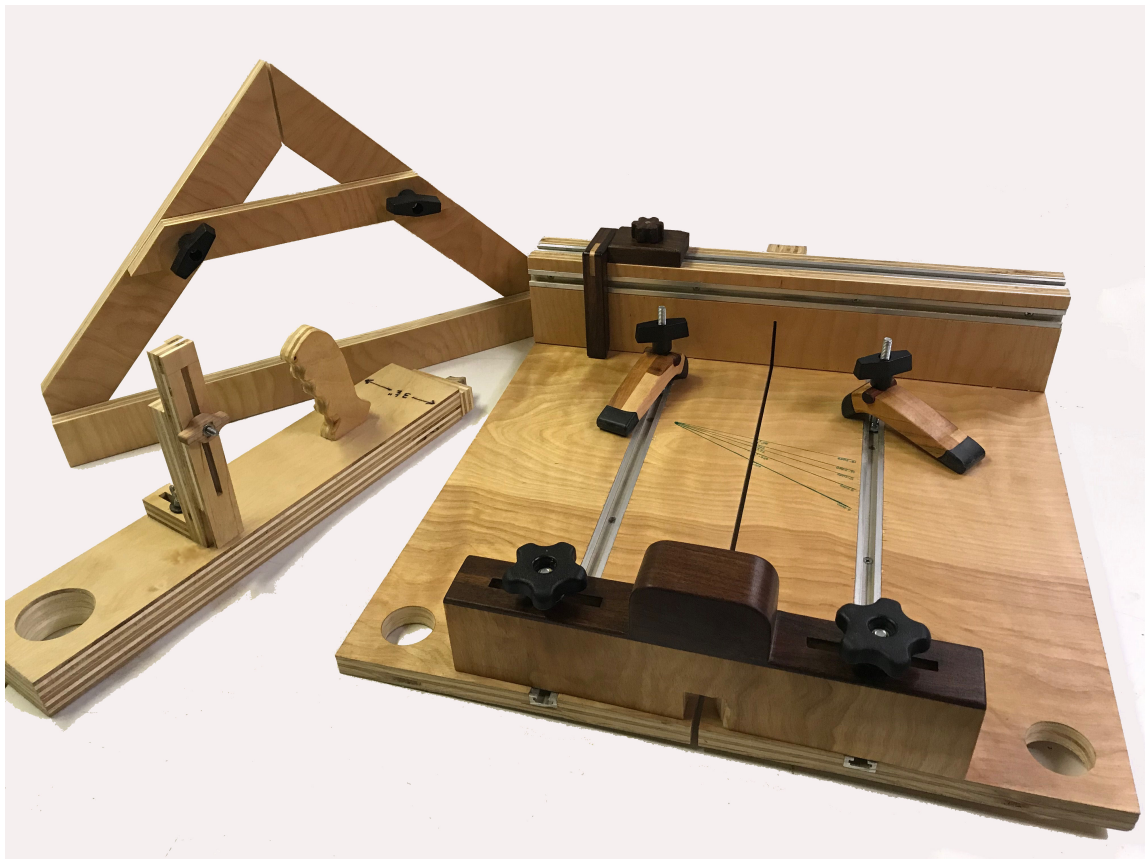
Project Plans:

Table Saw Jigs Pt.1

By: Drew Fisher

www.FishersShopOnline.com

www.YouTube.com/FishersShop



Terms & Conditions

This is a set of project plans purchased through the FishersShopOnline.com website and therefore should not be shared, copied, or redistributed in any form, medium, or format. You may, of course, remix, transform, print, or build upon the material in this document but reselling or sharing is strictly prohibited. Well... to be honest, there's not much I can do to keep you from doing it. But it sure would be a jerk thing to do, ya know? Have fun with it and build the project but if someone else asks you for the plans, please just have them purchase them from my website. It helps support the channel and it keeps me motivated to make more content like this. Thanks! 😊

Table of Contents

Introduction:	3
Tools Needed:	3
Materials Needed:	4
Thin Strip Jig:.....	5
Dropping the Base:.....	6
Cutting and Shaping the Handle:	7
Hold-down the fort:	8
What a Knob:	10
Preparing the Base:.....	10
Putting it all together:.....	12
Fisher’s Crosscut Sled:.....	14
It’s All About That Base:.....	15
I’m on the Fence:	17
Cool Runnings:	19
Squaring the Fence with Rocket Surgery:.....	21
Making the Coplanar Block:.....	23
Safety Third:.....	24
Sled Extras:.....	25
Flip-Stop:.....	27
Hold-down Clamps:.....	29
Miter Sled Attachment:	32
Rip the Strips:.....	33
Gluing the joint:	34
Adding the supports:.....	35
Drilling the holes:	37
Thin Strip Jig Handle Stencil:.....	39
Hold-down Clamp Stencil:.....	40
Thanks!.....	41

Introduction:

These plans are to build the table saw jigs as depicted in part 1 of the table saw jig video series on the Fisher's Shop YouTube channel. The three table saw jigs in these plans are the **Thin Strip Jig**, **Fisher's Crosscut Sled**, and the **Miter Sled Attachment** jig. When it comes to woodworking in a shop, jigs quickly become essential to maintaining consistency, efficiency, and safety. These three jigs definitely bring all of that to the table and more! I can personally testify that my woodworking skill has increased by incorporating these jigs into my regular crafting routine. I'm sure the same will happen for you too!

Approximate cost: <\$70

You can get all three of these jigs out of a 4' x 4' sheet of plywood with room to spare. So if your local home goods store or lumber yard will sell plywood in that size, then you're good to go.

Also, I purchased some T-track, knobs, and bolt kits from Rockler but you can easily substitute the bolts with Johni bolts and make your own knobs to save on cost. This will leave you with just the T-track to purchase and there are other suppliers that sell cheaper options.

Tools Needed:

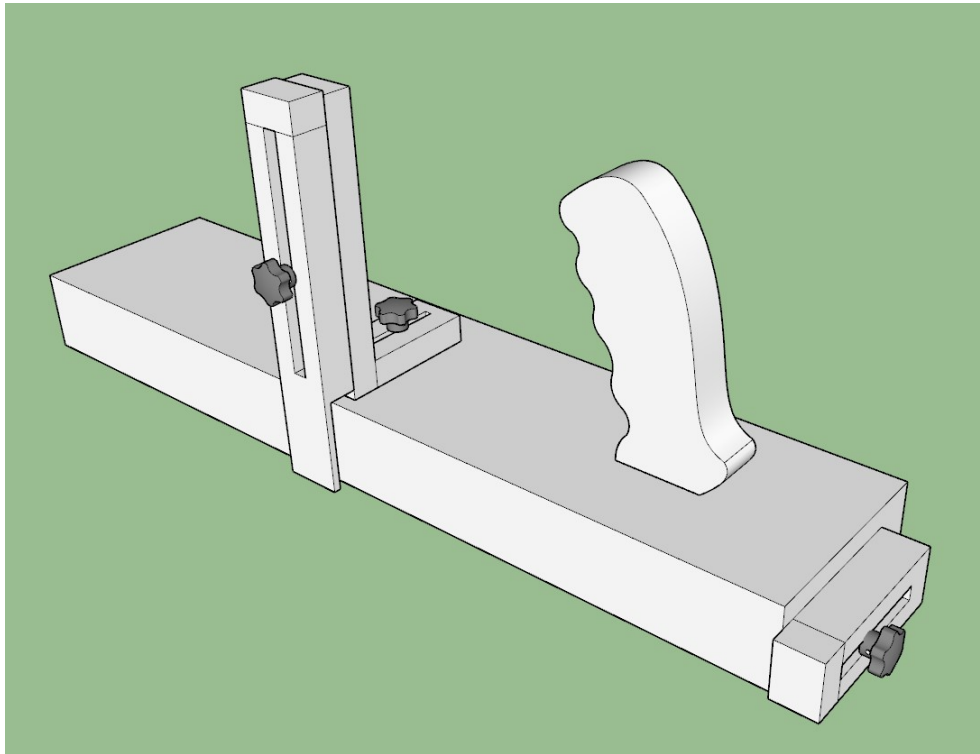
NOTE: Orange tool names indicate alternatives

Basic Tools:	Power Tools:
<ul style="list-style-type: none">• Measuring tape• Pencil / Marking gauge or knife• Clamps (spring clamps, squeeze clamps, short F-style clamps)• Scissors• Hammer• 1/4" Chisel• Combination square• Framing square• Speed square• Awl / Centerpunch• Drill bits• Dado Stack / Flat toothed table saw blade• Screwdrivers• Countersink bit• Calipers• Utility knife	<ul style="list-style-type: none">• Table Saw• Miter Saw / Hand saw / Hack saw• Band saw / Coping saw• Drill Press• Spindle Sander / Round file & Sandpaper• Drill & Driver

Materials Needed:

- 82" (Approximately 7') of T-track
- 7 T-track bolts (4 long, 2 medium, 1 short) / **Johni bolts**
- 1 of 2.5" bolt, washer, & wingnut (3/16"-1/4" thickness)
- 1 of 2" bolt & hex nut (3/16"-1/4" thickness)
- 1 of 1" lag bolt w/ hex head (1/4" thickness)
- 8 of $3/8''$ countersunk screws (Might have to sand off points of 1/4" screws to get them small enough)
- 12 of 1/2" countersunk screws
- Plywood (Approximately 4' x 4' of 3/4" plywood)
- Wood Glue
- Craft Adhesive
- CA Glue & Activator / **Epoxy**
- 8 of 1/2" washers (for spacers)
- 6 of 2.5" countersunk screws

Thin Strip Jig:



So what's the deal with this jig? Let me tell you. In many of my projects I find myself needing really thin pieces of stock. For instance, adding an accent stripe in a watch/phone caddy, making a thin border around a 3D cutting board, or adding splines to a recipe box (kudos to you if you recall those projects of mine). The point is, it's common to need thin strips for your woodworking projects. The question is, how do you safely and accurately cut them?

For a thin strip that is $3/32''$ (typical for a thin kerf spline), you wouldn't want to put your table saw fence that close to your blade... that's just not safe. There's really no good way to control a cut like that. Another option is to make your thin strip a cut-off. In other words, set your fence up to: The width of your stock - ($3/32''$ + Table Saw Blade Kerf). This is good for one cut... then you need to readjust your fence if you want to do another. And where precision counts, inevitably your next cut won't produce a thin strip that is identical to the first since you're having to adjust the fence each time.

Enter the Thin Strip Jig by yours truly! This jig gives you all the convenience of NOT having to adjust the fence between cuts, having the safety of 3.5+'' of pushing room between the blade and the fence, and the consistency and accuracy of producing identical thin strips.

So let's make it!

Dropping the Base:

The first step to making this jig is to get the base glued up and set off to the side to dry. Start by ripping two 4" strips of 3/4" plywood 18" long. We'll trim them down to their final dimensions once they're glued up and dry. Once you have them cut out, spread on a coat of glue, clamp them up tight and set them off to dry.



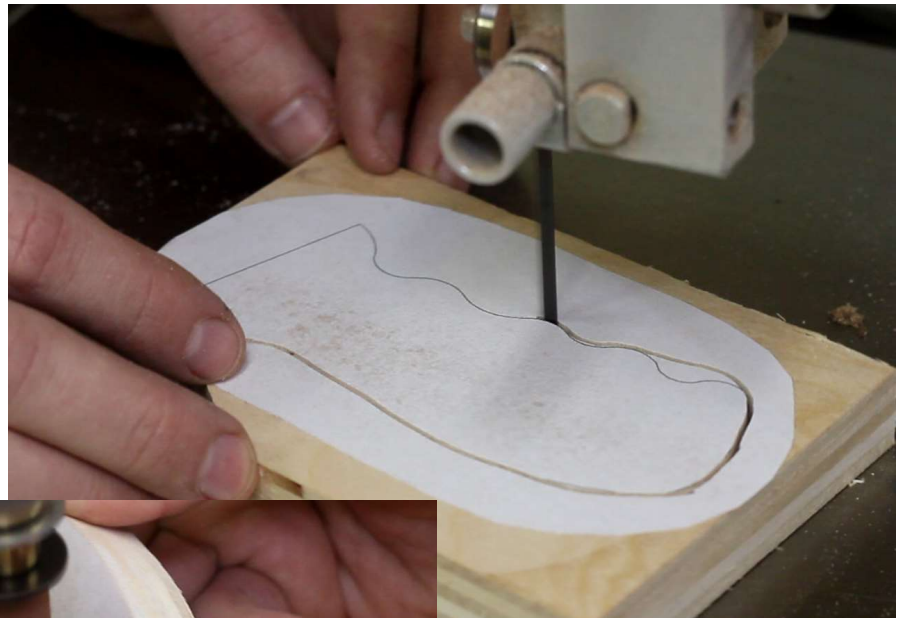
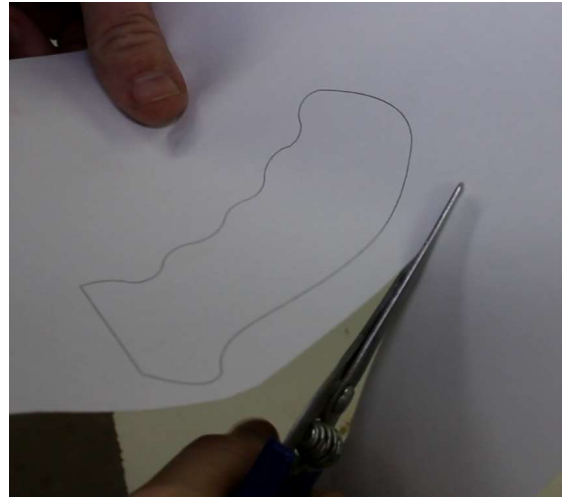
Cutting and Shaping the Handle:

Print off the 1:1 handle stencil and the end of this document and cut it out. Then just use some craft adhesive to adhere it to a 2" x 5" piece of 3/4" plywood.

Then using the bandsaw or a coping saw, cut the handle out staying just on the outside of the line.

If you have a spindle sander, use a small spindle to remove the bandsaw marks in the finger grooves. Then by holding the handle at an angle, you can soften the edges and make it much more comfortable to hold.

After you've got the handle just the way you want it, make sure the bottom is perfectly flat. You can do this with a belt sander, disc sander, or even by shaving off a hair with your miter saw. This is important because when it comes time to glue the handle to the base, you want a good flat surface for the glue to adhere to.



Hold-down the fort:

From my experience and from earlier versions of this jig, I've had a few instances where I'm cutting thin strips and once I near the end of the cut, the rotation of the saw blade will try to tip the front of the piece up and fling it back towards me. To eliminate this, I designed this little hold-down clamp that keeps things from lifting up.

I experimented with multiple different solutions that applied pressure, but what I found was that unless the clamping pressure was directly downwards, the thin strip would be getting pushed into the back of the saw blade and that just leads to inaccurate cuts and, in worst case scenarios, kickback.

Although my solution doesn't actually apply clamping pressure, it does act as a hold down with the jig itself acting as a weight.

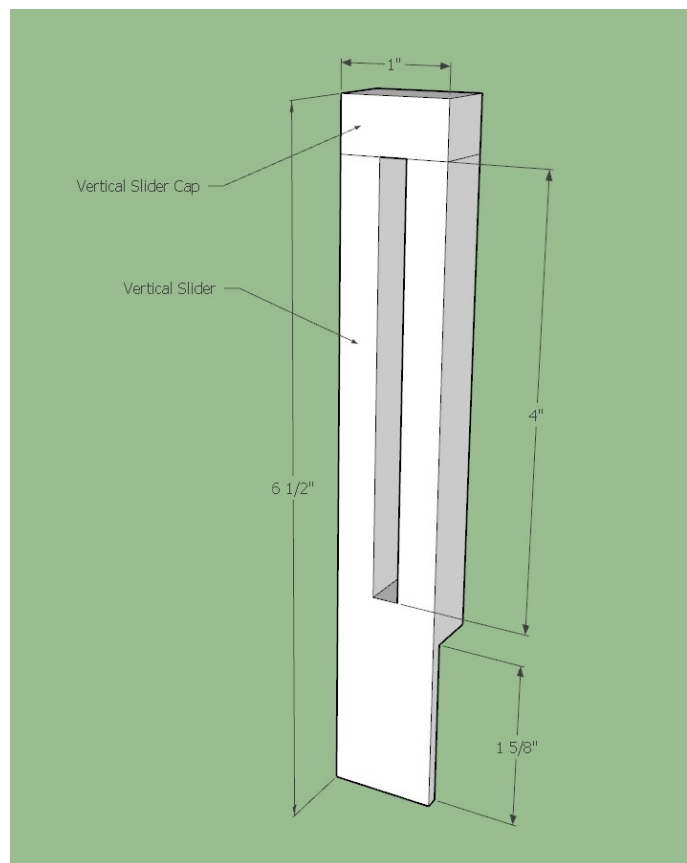
Start by cutting the following pieces from 1" strips of 3/4" plywood:

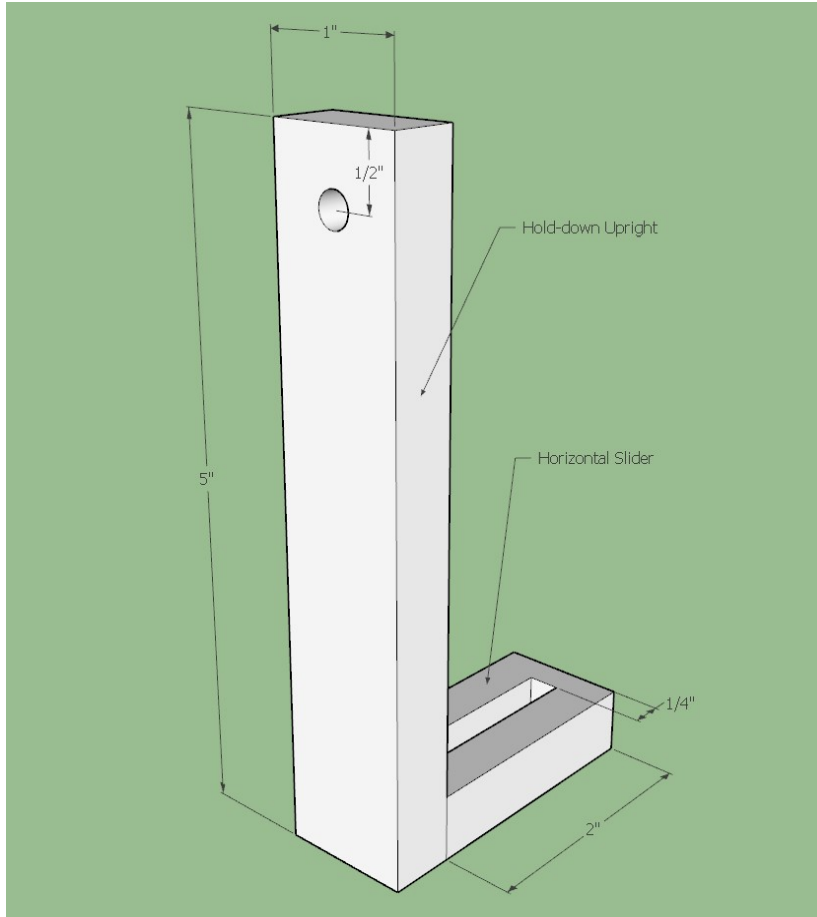
Piece Name	Dimensions
Vertical Slider	6" x 1" x 3/4"
Vertical Slider Cap	1/2" x 1" x 3/4"
Hold-down Upright	5" x 1" x 3/4"
Horizontal Slider	2" x 1" x 3/4"
Back Catch Slider	2.5" x 1" x 3/4"
Back Catch Cap	1/2" x 1" x 3/4"

Next step is to mark out the grooves on the sliders for your bolts to travel through. Make the grooves wide enough for your bolts to easily slide through and center them to the piece.

Pictured to the right is the vertical slider and its cap. Once you cut out the groove and confirm that your bolt can easily slide within, glue on the cap piece.

Regarding the small fin on the bottom, the thickness of this represents the thinnest strip you can cut that is shorter than the height of the jig. With that in mind, I cut mine to be 1/8" and if I need to go narrower, I'll probably just let the saw blade chew into it a bit and make a new one if I need to.



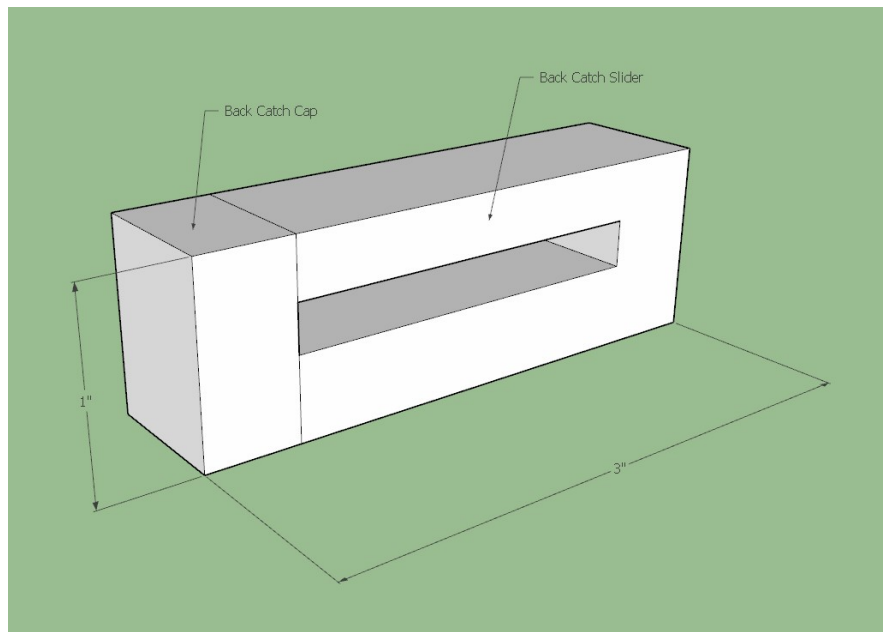


The Hold-down Upright and the Horizontal Slider go together as pictured to the left.

The Upright gets a hole drilled through for the bolt that will secure the Vertical Slider. Trace the head of the bolt onto the backside of the Upright hole and chisel out a mortise. If you have a round-headed bolt, you may need to file it down to give it some square edges for the mortise to be effective.

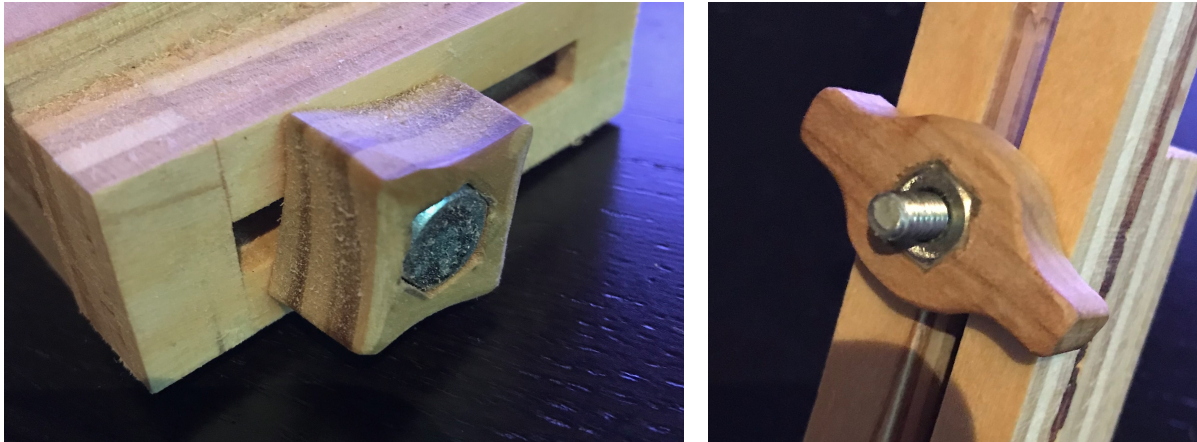
There's no cap needed for the Horizontal Slider since we'll just glue it up against the Upright. Again, make the groove wide enough to easily accommodate your bolt and center it as best you can. Once you got these two pieces cut and looking good, feel free to glue them together as pictured to the left.

The Back Catch is the easiest of the three pieces. Just cut out the groove so that it allows the lag bolt to easily travel within and then glue on the Back Catch Cap. When you're complete, it should look similar to the picture on the right.



What a Knob:

There are a few opportunities for knobs on this jig. Obviously, you could opt to use pre-made knobs or wing-nuts. But if you're feeling especially crafty, you can make some. Here's a picture of the two that I made for this jig. They are nothing special, but they work wonderfully.



Making them is pretty straight forward. Although one of them is for a hex-headed lag bolt and the other is for a nut, the principle is the same. Drill a hole through the small piece of wood, trace the head of your bolt/nut around the hole, and chisel out a mortise for it so that it sits flush. Once you have the bolt/nut nested into the knob, make it permanent by sealing it in there with some CA glue or epoxy.

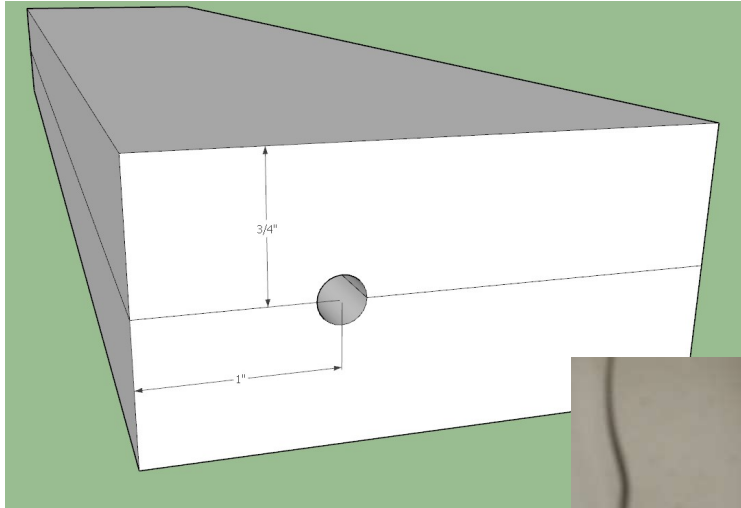
This is a step where you can choose to be a little creative if you'd like. There's lots of designs for knobs that you can try. Just be conscious that the knob for the Back Catch should NOT be able to snag the back edge of the table saw surface in any way.

Preparing the Base:

Once the Base is dry and out of the clamps, you'll need to get it to its final dimensions. Clean up one side on the table saw by cutting off as little as you can in order to get it flat. With one good edge on the base, set your table saw fence to exactly 3.5", reference the newly cut edge against the fence, and trim the Base down to its final width.

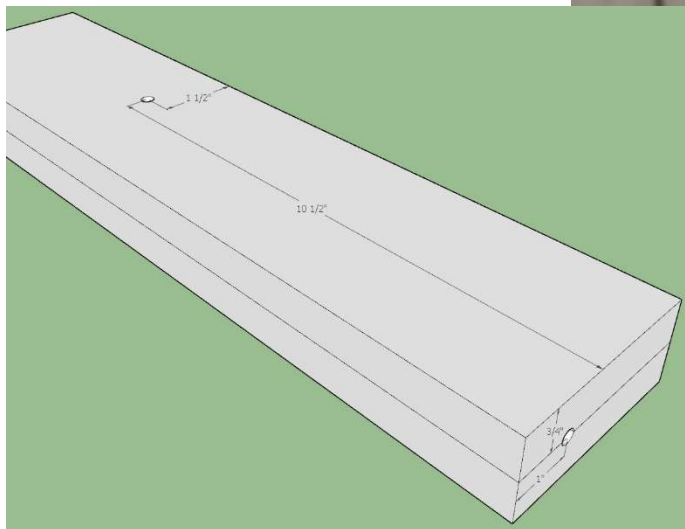
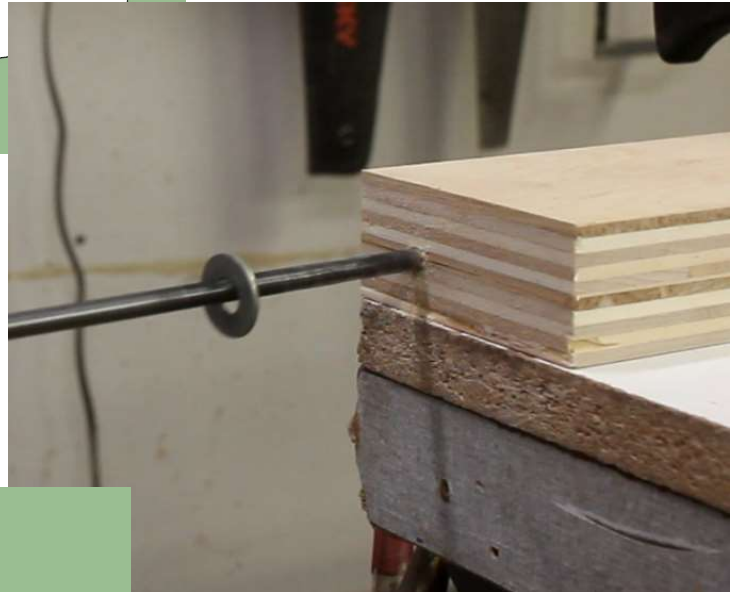
Next, take it over to your miter saw and clean up both the front and the back edges. At this point, the Base should be completely square on all corners.



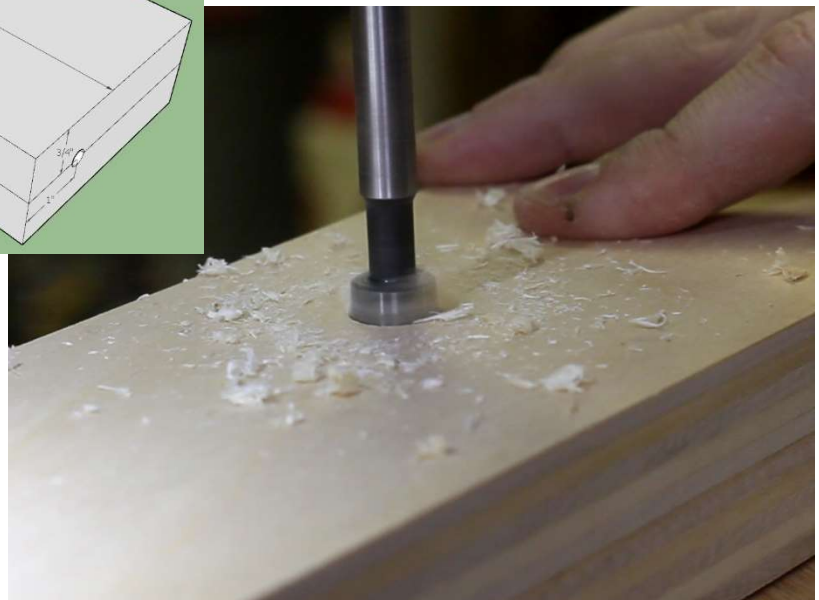


Now we want to drill our two mounting holes into the Base. For the hole in the back, I simply drilled a 1/4" hole for my lag bolt and made sure that I drilled level and true. Measure 3/4" down and 1" in from the back left to find your hole location.

The hole for the Upright gets drilled 10.5" from the back of the jig and 1.5" from the right-hand side. Also, this hole MUST be counter-bored from below so that the bolt head sits beneath the surface.



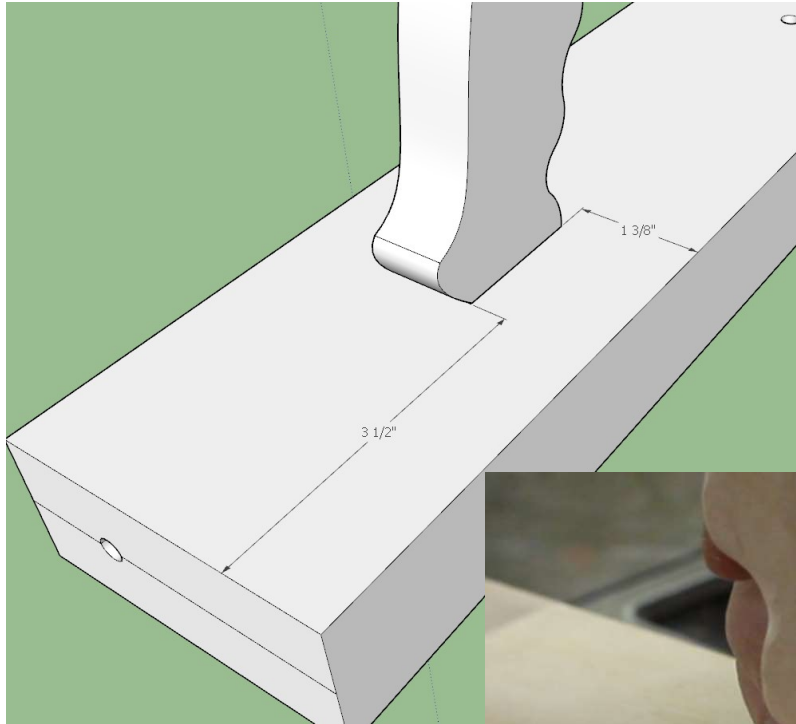
It's also a good idea if you drill this hole slightly undersized so that the bolt cuts its own threads as you put it in.



Putting it all together:

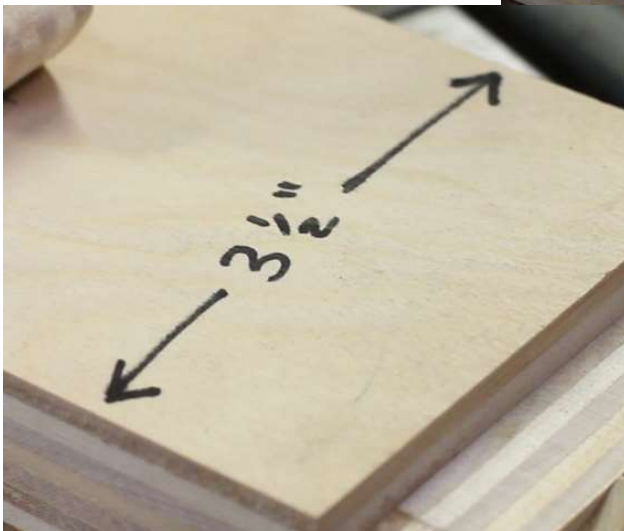
At this point we should have everything ready to be assembled. Put the Vertical Slider onto the Upright and tighten it down. Then place the Horizontal Slider onto the bolt in the Base and tighten that one down as well. Finally, the lag bolt gets screwed in and tightens down the Back Catch.





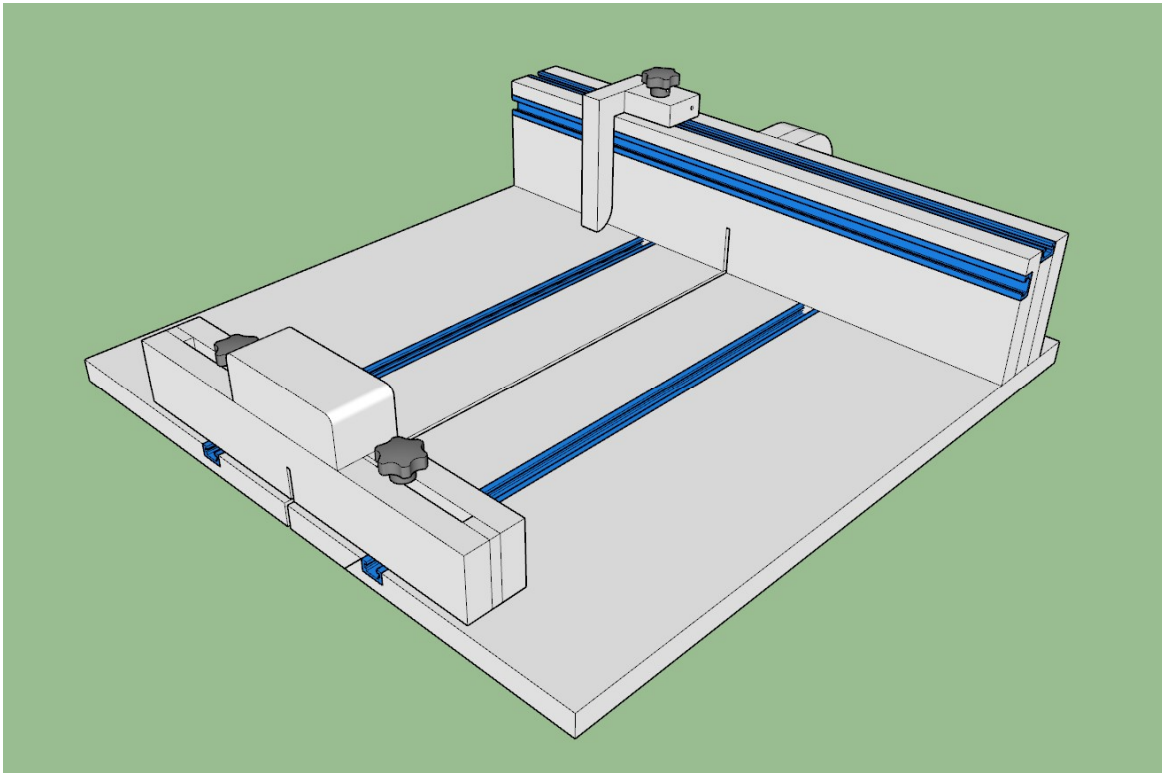
The last and final part of assembly is gluing on the handle. I positioned my handle 3.5" inches up from the back of the Base and then centered it. But you should figure out what's comfortable for you first. Take the jig to your table saw and see what feels good before just picking an arbitrary spot to glue on the handle.

I jotted down the 3.5" inch measurement on the top of the Base just to help my poor memory. This is obviously optional, but it saves you from having to re-measure things each time you want to use it if you tend to be forgetful like me.



And with that, the Thin Strip Jig is done! Now go and cut a thousand paint stir sticks!

Fisher's Crosscut Sled:



I've been in dire need of a decent crosscut sled for a while and now I finally have one... and it's not "decent"... it's awesome! It actually was good that I fumbled around with a bad crosscut sled that I made years ago for this long because it gave me plenty of time to discover the features that I definitely wanted to include in my next version. For example, I found myself having to cut notches in the fence so I could get clamps to reach down far enough to hold tiny pieces, I needed a coplanar block in front but it was also nice to have room to cut large pieces, my fence lacked the chamfer at the bottom to collect dust, and much more. So I pooled all my ideas and came up with this guy. Here's a breakdown of the features this sled has:

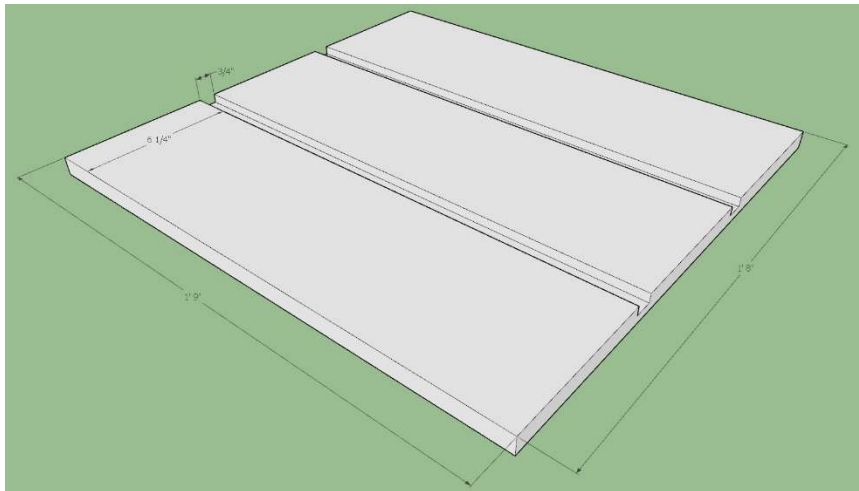
- It's a medium-sized easy-to-handle sled measuring 1'9" x 1'8" making it light-weight but still adequate for most crosscutting needs.
- Fence has 2 T-tracks, one on top and one on the face for stop blocks and/or clamps
- Dust collection chamfer on the fence
- Sled base has 2 T-tracks for clamping
- Coplanar block is removable for large pieces
- Coplanar block is adjustable to cut angles for segmented pieces
- Single runner allows sled to be moved to alternate miter slot for angled-blade cuts
- Blade guard behind fence for safety

So let's build this thing!

It's All About That Base:

Start off by dimensioning down the base to a width of 1'8" and a length of 1'9". If you'd like to tweak the plans and make the sled larger/smaller, you'll want to figure out what dimensions you're going to shoot for and to cut your base to that size in this step.

I chose the dimensions I did because this size will accommodate the small projects I typically work on very well and it doesn't take up much space. However, if you're working on larger projects then you might want a larger version of this sled.



Next step is to plow the channels for the T-track in the base. I positioned mine 6 1/4" in from either side so that my clamps could easily reach just about anywhere on the sled surface. However, if you've altered the dimensions of the sled, you might want to change the locations of these channels.

I used a dado stack to quickly cut the T-track channels but if you don't have that type of blade you can accomplish the same task with a router and 3/4" straight bit or by taking multiple passes on your table saw with standard blade and adjusting the fence a little bit after each pass.

I recommend making a couple practice pieces first to make sure you've got the right channel size before cutting your Base piece. We're shooting for a perfect fit here with no slop but yet not too tight AND the groove **MUST** let the T-track sit **JUST BELOW** the surface (maybe 1/32" to 1/16").





Next up is cutting the T-track for the Base. First, lay the T-track into the channel and position it so that the screw holes (if the T-track is pre-drilled with holes) are even.

Mark both ends where it needs to be trimmed. I found using a utility knife to be very effective at giving me a precise and easily-readable mark on the T-track. Now you're ready to make the cuts using your miter saw or hacksaw.

Since T-track is just aluminum, you can cut it easily with most shop tools. Just go slow, be gentle, let

the tool do the work, and be conscious that you're still cutting metal... so the offcut could go shooting off if it catches the blade (as seen in the outtakes of my video)!

When affixing the T-track into the channels on the Base, I chose to use CA glue and screws. The screws I had were just a touch too long and needed to have the tips sanded off so that they wouldn't protrude out the bottom. You've got less than 3/8" of material to work with under the T-track so there's no doubt that you'll have to shorten the screws.



As long as you pre-drill the holes to the correct size, the screws don't really need a sharp point so whether you choose to use CA glue or Epoxy to glue in the T-track, make sure that your screws you use are short enough!

I'm on the Fence:



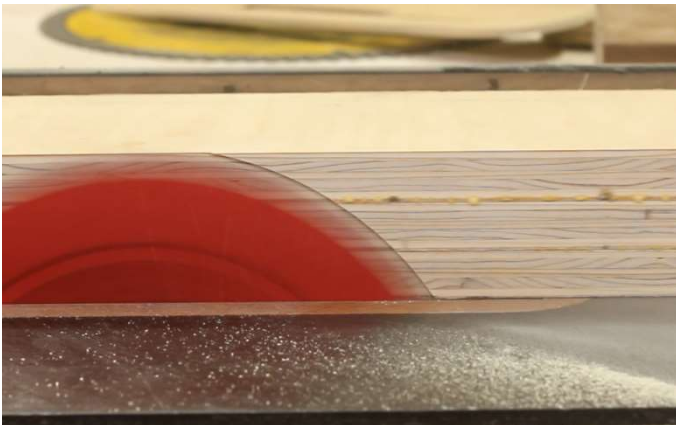
On to the fence! You'll want to rip down three strips of 3/4" plywood to form the fence and you'll want to cut them oversized. Once we laminate them, no doubt we'll introduce subtle variances on the top and bottom that will need to get trimmed off to square things back up.

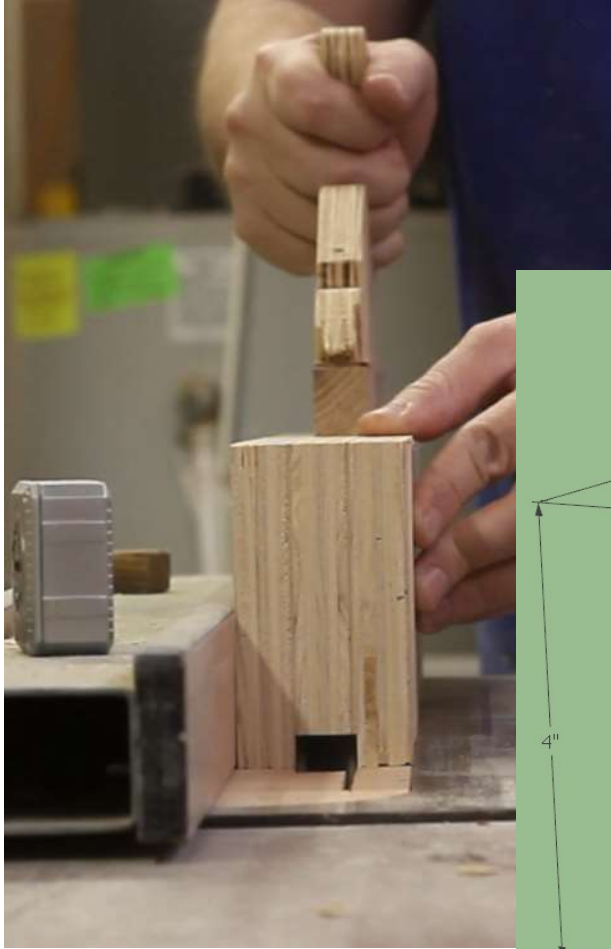
With the final height of the fence being 4", I recommend cutting out these pieces at around 4 1/4" to 4 1/2" to give yourself plenty of breathing room and to a length that is slightly longer than the width of your Base.

Glue up the three pieces, make sure they're aligned properly, clamp it up tight, and set it off to dry.

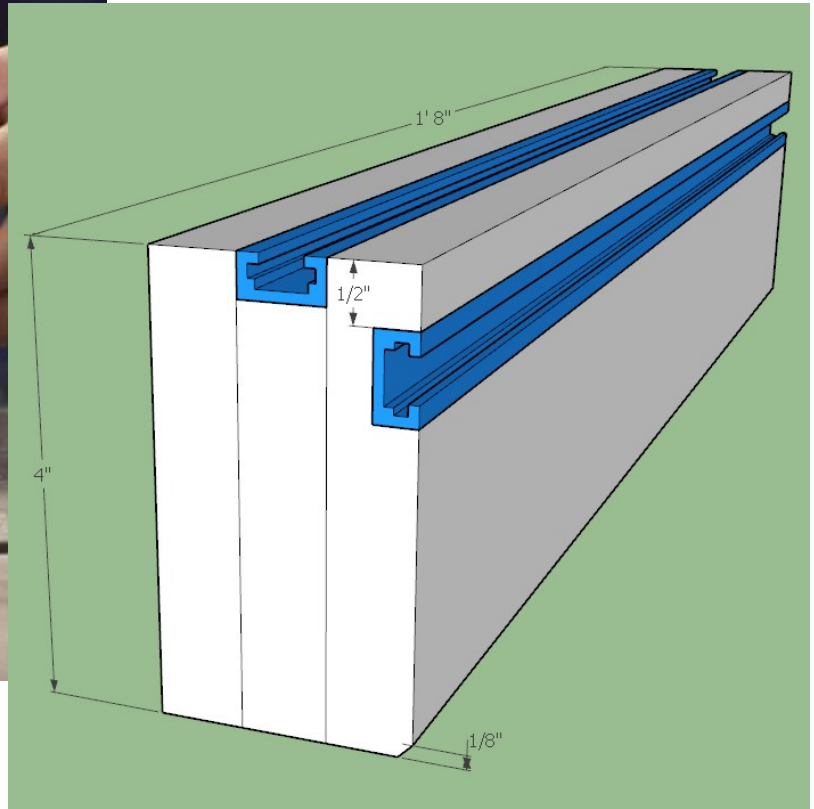
Once things are dry, take it out of the clamps and scrape off any squeeze-out from the top and bottom.

Run it through the table saw and clean off one of the edges of the fence. Then, referencing that newly cut edge, set your table saw fence to exactly 4" and cut the other side. At this point you can take it over to the miter saw and clean up the ends while also trimming the fence down to its final width.





Next comes planing the channels for the T-track on the fence top and the front face. Use whatever technique you did for the Base in cutting the grooves but hold off on gluing and screwing in the T-track until we're completely done with all the cuts.



For the channel on the front face, I recommend positioning it about 1/2" down from the top, as pictured above. This will give you plenty of room for your clamps to work as well as the top T-track won't impede the mounting screws.

The last bit we need to do to make the fence is to cut the small chamfer on the bottom front edge. This little chamfer allows room for accumulated dust to sit where it won't impact your project piece so your stock will still be able to rest squarely against the fence.



Now with all the cuts done, you're good to secure in the T-track. Use either CA glue or epoxy to glue it down and drive in 1/2" screws to make it secure. You shouldn't have to shorten the screws at all since we have plenty of material to work with here.

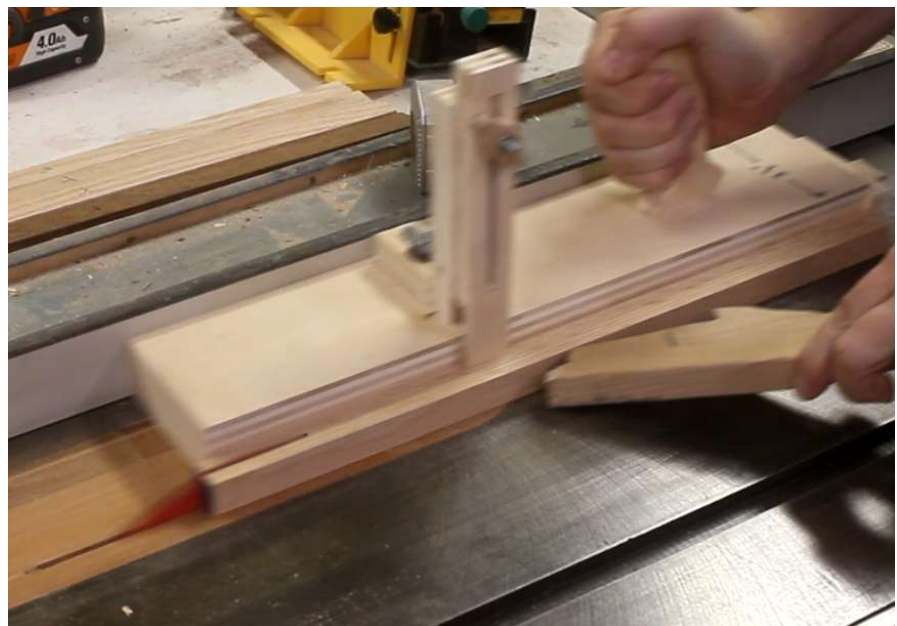


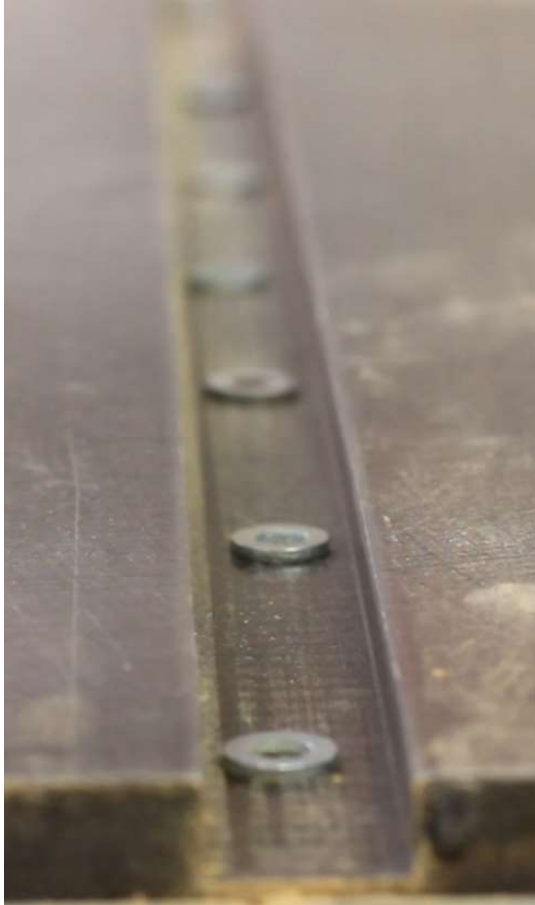
Cool Runnings:

As John Candy use to say, "Use the Thin Strip Jig to cut your table saw jig runners!"

I recommend using a hardwood or even a poly-plastic material (often found in plastic cutting boards) for your table saw jig runners.

This sled will use just one runner, so cut one the length of your Base and make sure it fits snugly into the miter slot and just below the surface of your table saw.





You might find that you need to sand the edges of your runner a bit to get it to slide easily within the miter slot. Be careful to sand it evenly and to take off just a tiny bit at a time so you can sneak up on the perfect fit. It's important that there is ZERO side-to-side slop for this runner since the jig is only getting one. There's a bit of grace with jigs that have two runners, but since this sled only has one we HAVE to make it perfect. Once you've got a good fit, we're ready to stick it onto the bottom of the sled.

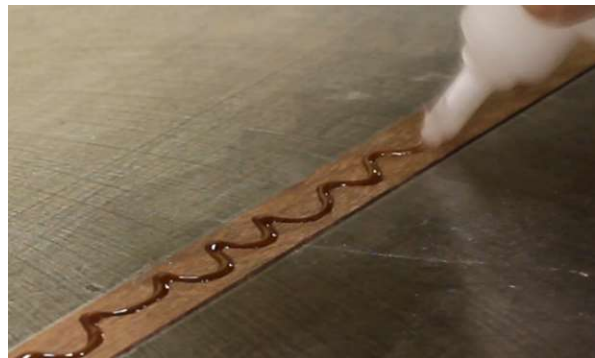
Use a handful of washers to act as spacers within your table saw miter slot so that once you place your jig runner in, it will be breaking the surface just a little bit.

At this point, drop your runner in and verify that it's above the surface. You'll want to use your table saw fence as a guide to help you drop the Base down squarely, so position that appropriately so that the center of the Base is lined up with the blade.

Then, squirt on some CA glue (not TOO much, we don't want squeeze-out) onto the runner, and gently lay your Base down onto it while keeping it square to the table saw fence.

Once the CA glue sets, you should be able to very carefully slide the sled backwards off the surface and flip it over upside down. Scrape off any squeeze-out that there might be.

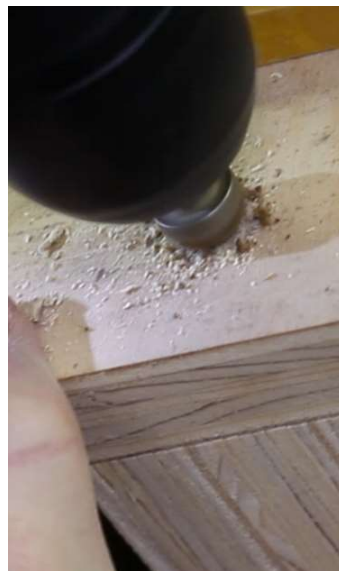
Now we can drill, countersink, and screw the runner in to add more support. There's enough material for you to put in 1/2" screws without the need for you to shorten them.



You might find that you need to do a touch more sanding to get the sled to slide smoothly. Just be careful not to take off too much. I used a bit of paste wax on the runner and on the bottom of the sled to help as well.

Squaring the Fence with Rocket Surgery:

The first step to squaring up the fence is to just get it in the ballpark. To do this, I flipped the sled back over and put it into the miter slot. Then I used a framing square against my table saw fence and lined up the crosscut fence with the back edge of it, **making sure** to space it 1" in from the back of the Base. Once you got it as good as you're going to by eye, gently slide the sled back enough for you to clamp the fence down to the base. With it firmly clamped down, flip the sled over, drill, countersink, and drive in **ONE 2.5"** screw on **EACH** end of the fence.

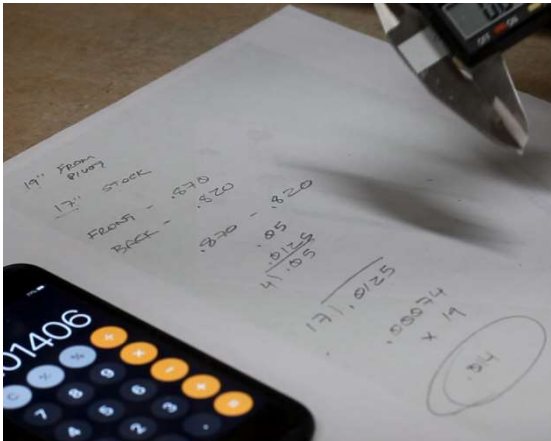




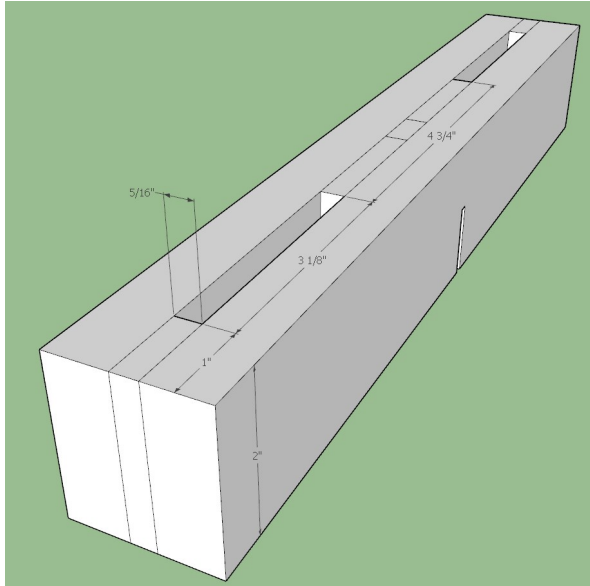
Now I'm not going to go into full detail regarding the "5-cut Method" because I'd just end up butchering it. Instead, I'll link you to the article written by William Ng who developed the concept. I followed the instructions in this article closely and was able to dial in my fence to just about perfect. Don't be discouraged if it takes you a few tries though! I ended up doing the process 5 times before I finally got it where I wanted it.

William Ng's YouTube video explaining the process: <https://www.youtube.com/watch?v=UbG-n--LFgQ>

William Ng's article explain the "5-cut Method": <http://valleywoodworkers.org/wp2/wp-content/uploads/2014/01/5CutMethodSquare.pdf>



Making the Coplanar Block:



The Coplanar Block is used to keep the two sides of the sled Base on the same plane since there is a cut that goes all the way through. Even though the Base is securely fastened in the back with the fence, it's not uncommon for the front to go a bit wonky. This block keeps that from happening.

For the Coplanar Block, I wanted to make it adjustable, so I needed to laminate multiple pieces together to form the channels for the T-track bolts to travel within.

Make five small spacers that are **over 2"** in height (we'll trim them down later) and 5/16" thick. This will give the T-track bolts some wiggle room once they're inserted.

The dimensions of the Coplanar Block faces are 13" long and 2" high so leave yourself some room and cut out two pieces that are roughly 13.5" x 2.5".

Laminate all the pieces up and clamp things to dry. Be careful to mitigate any glue squeeze-out on the inside since it'll be difficult to clean up afterwards. Once things are dry, clean up the edges and cut it down to its final dimensions using the table saw and miter saw.

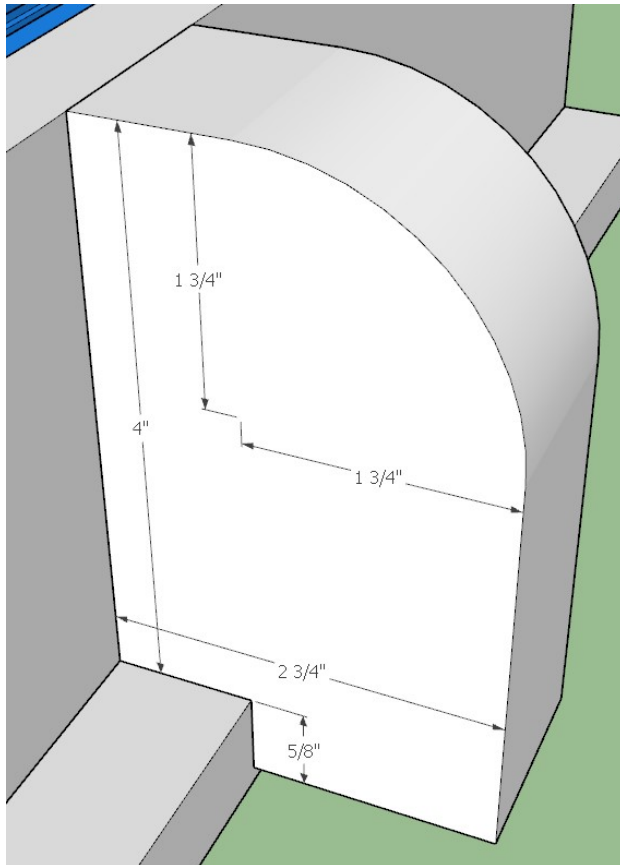


Then, to add more support to the block, I chose to glue on another piece over the center kerf. I rounded the corners since my fingers would no doubt be hitting it as I operate the knobs. This will allow for the cut through the block to be larger without sacrificing the integrity of the Coplanar Block itself.



Safety Third:

Since the saw blade will be peeking out the back of the sled during your cuts, it's a good idea to add a blade guard. I glued together a couple of pieces, cut a notch, and then added a curve to the top so that I wasn't getting stabbed with a sharp corner.



When you do this, be sure to make the notch a touch shallower than the Base thickness so that there's no risk of it getting snagged on the back of the table saw surface. I cut mine at around 5/8" so that it's just a bit shorter.

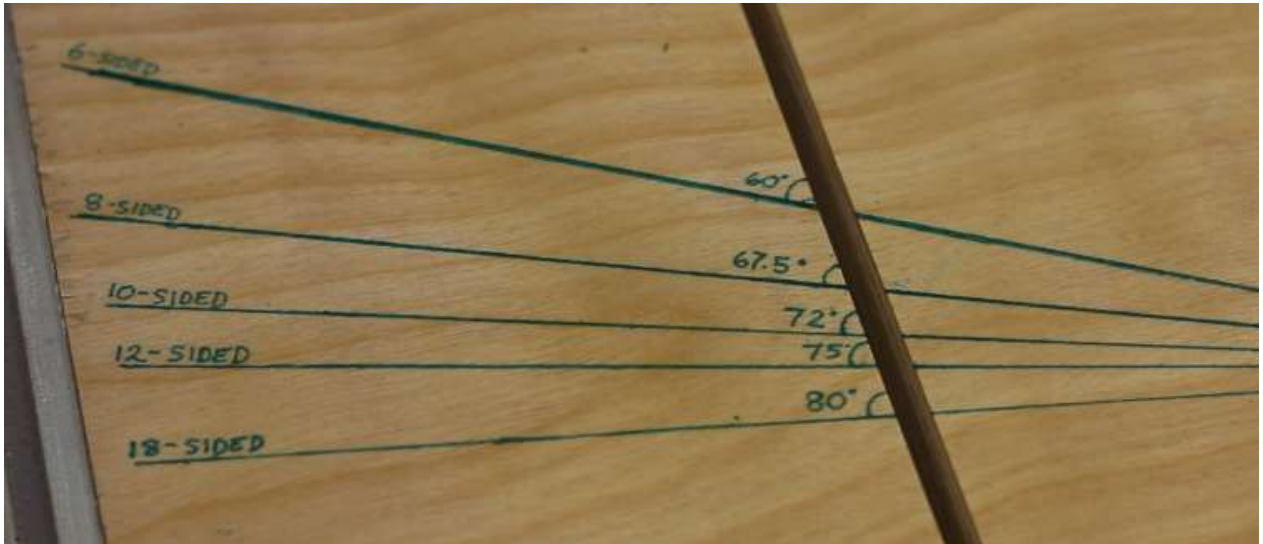
The height should be that of your fence, which is 4" and it sticks out 2 3/4" from the back of the sled.

Once you have the blade guard cut, notched, and shaped the way you want it, center it over the back kerf and glue it into place to dry.



Sled Extras:

I chose to draw on some angled reference lines using a digital angle gauge for assistance. This will allow me to adjust the front Coplanar Block to one of these lines so that I can easily cut little pieces for segmented projects. I used a fine point felt-tipped pen to color the lines and then once it was dry, sprayed a coat of Shellac to seal it. Honestly, I'm not sure how often I'll use these reference lines, but it's kind of neat that they're there.



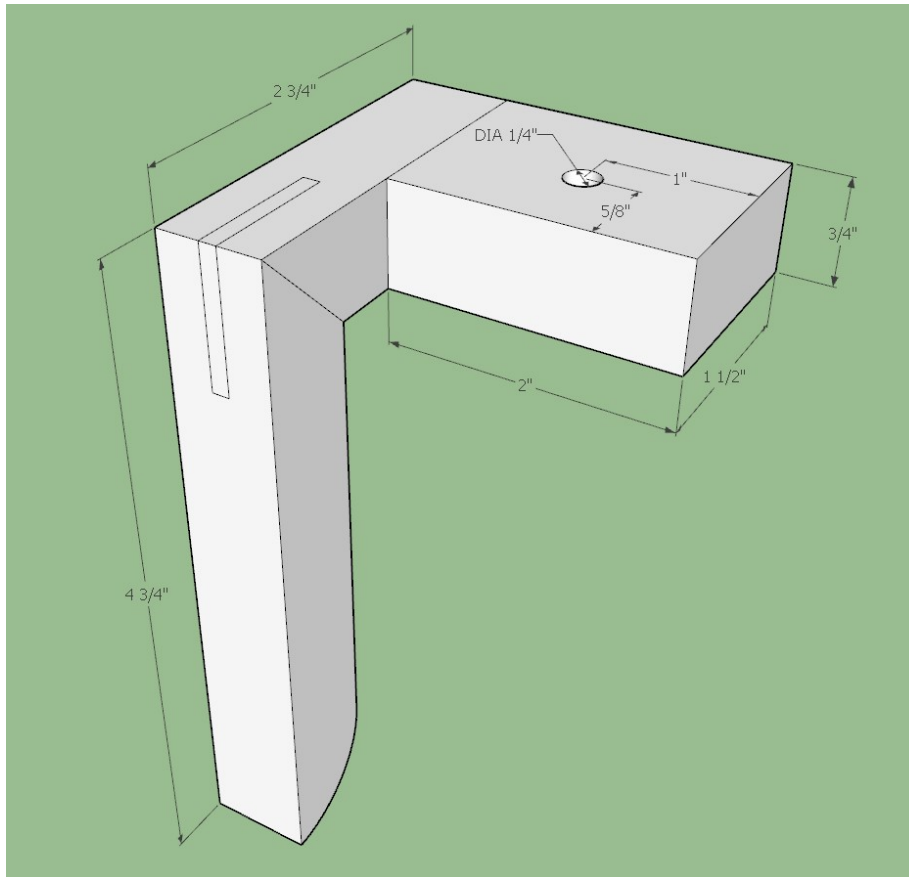
Since we only put a single runner on the bottom of this sled, you can lift the entire thing up and set it down in the other miter slot on the table saw. This will allow you to make angled crosscuts off the side of your sled if you wish. The very first time you push the sled through you might take off just a touch of material from the side, but that should be alright.

I also made a T-track Flip-Stop and several Hold-Down clamps that you see in the video. It wasn't my intention to include those in these sets of plans because I think most folks either have something already or want to buy professionally-milled ones made from aluminum.

However, if that's not the case for YOU, then I'll also include some rough drawings and a few pictures that ought to help you recreate these for yourself. I can tell you that I easily saved over \$100 just making them myself out of scraps and they've been extremely handy to have and use!



Flip-Stop:



I chose to make the flip-stop out of hardwood because I figured it would hold up better to the abuse I was going to give it as well as look better.

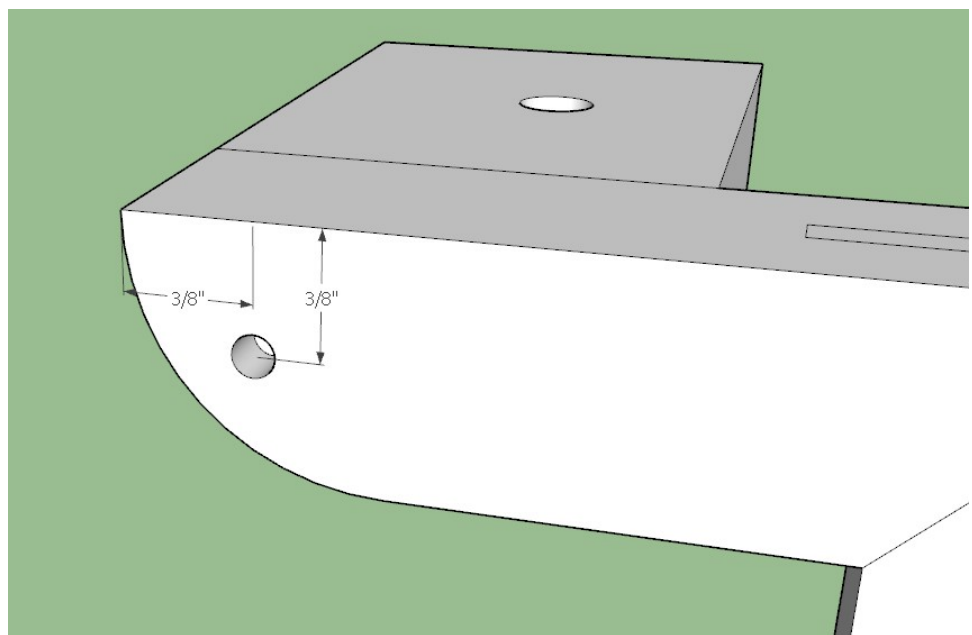
I started by making the finger and mitering it using the sled attachment. Then I used my spline jig to add some reinforcement to the joint. I drilled a hole $\frac{3}{8}$ " in and $\frac{3}{8}$ " down where it will attach to the T-track block and then rounded the ends on the disc sander.

The T-track block is really just a block with a $\frac{5}{16}$ " hole drilled in it for the bolt.

I made my own knob out of walnut but you can just as easily use a plastic one or wing-nut.

The trick is getting it laterally square to the fence. Mine took some tweaking but I accomplished that with light sanding until it was perfect.

Here's some pictures of mine from different angles if it helps...





Hold-down Clamps:

Start off by printing off the 1:1 hold-down clamp stencil near the end of this document. Take that, cut it out, and glue it onto some hardwood that's 1"-1.5" thick and drill out the hole with a 1/2" drill bit.

Next, take it over to the bandsaw and cut it out just outside of the line.

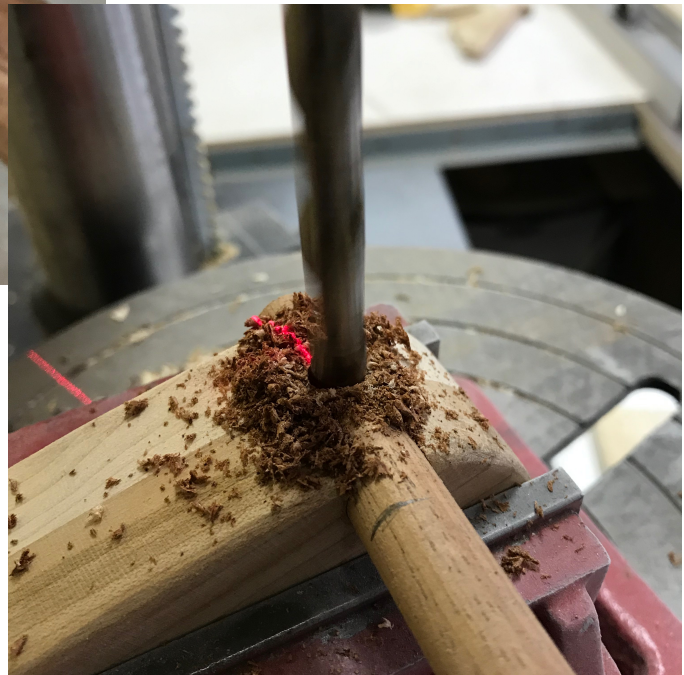
Smooth things out at the sander, working your way up to the line, and round off the edges to make it a bit more comfy to the touch.



Next, I made a 1/2" hardwood dowel (you can buy them if you don't want to make your own) and sanded down until it fit smoothly and could rotate easily within the hole.

Trim the dowel to fit and then take it over to the drill press and drill a 5/16" hole straight through the dowel and the clamp.

It helps to have the piece clamped into a vice while you do this next operation...

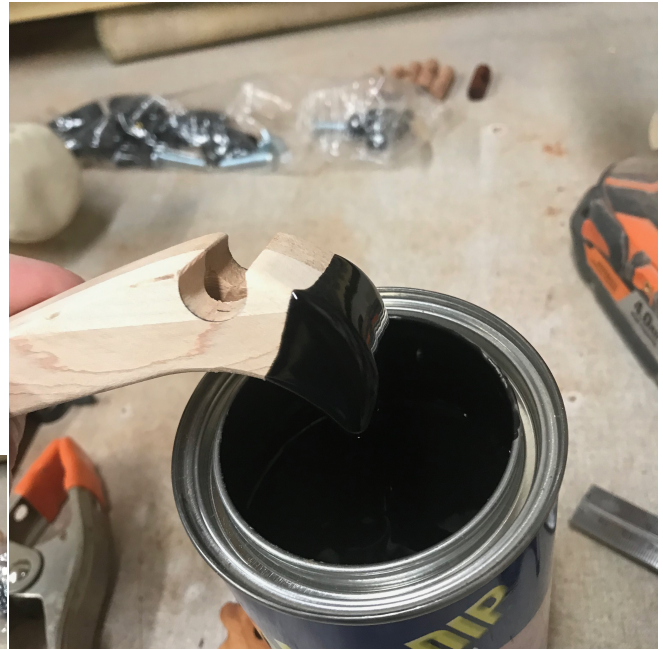


Next, remove the dowel piece, tilt the piece in the vice, and drill again using the same entrance hole but drilling more towards the rear of the clamp. Then repeat the process with the piece tilted the other way so you drill more towards the front. The end result should be a splayed hole. Refer to the pictures to get a better idea of what I'm talking about.



Then I wanted to give the ends more gripping strength so I gave them a couple coats of Plasti-Dip. This really improved their holding ability dramatically and it was a very easy application process. Just dip and hang to dry. 30 minutes later you can apply another coat if you like. And with a four hour cure time, you're back in business.

Using the short side gives a tremendous amount of holding force but requires a longer bolt. I recommend searching your plumbing department for Johni bolts (used to hold toilets to flanges).

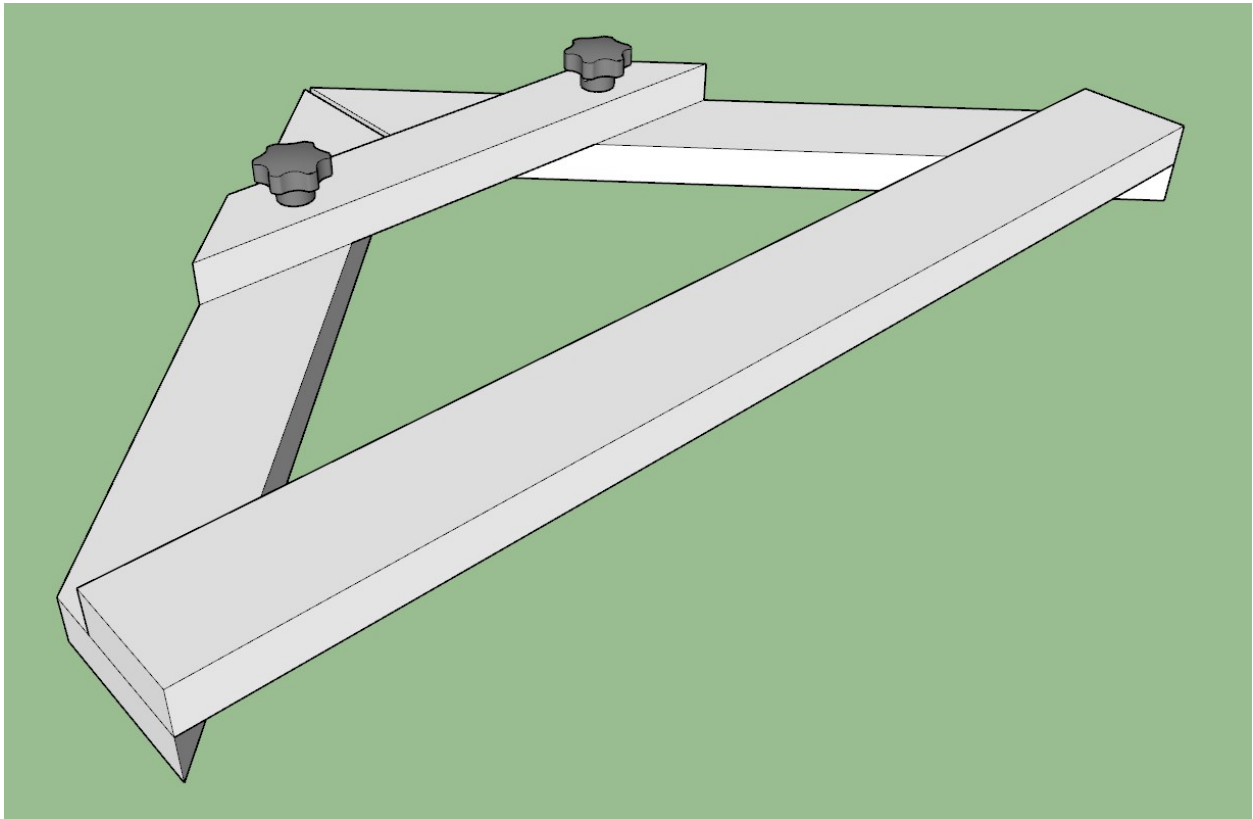


They're super cheap and they're the same size and shape as T-track bolts and work perfectly for this sort of thing.

Aside from that, your hold-down clamps are complete!



Miter Sled Attachment:

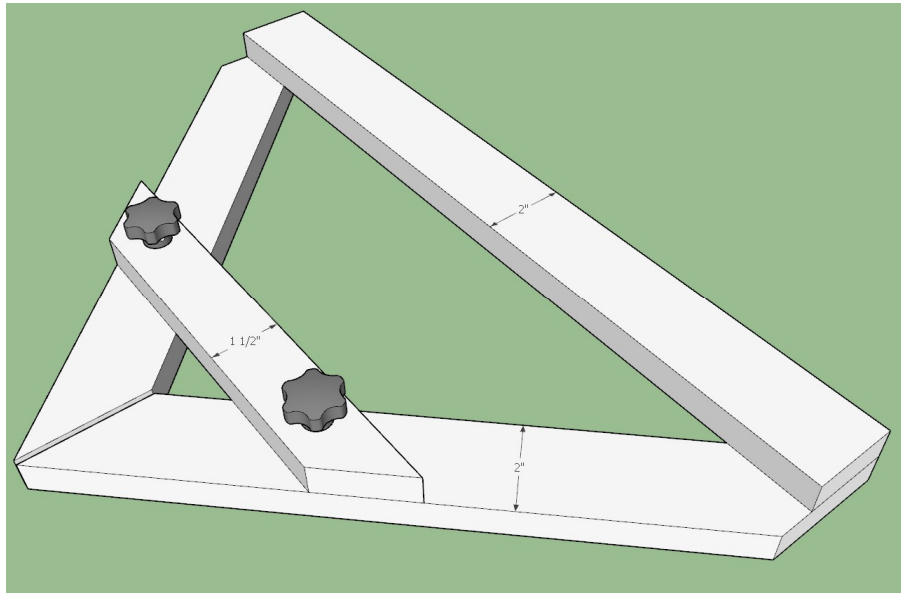


This little jig will prove invaluable if you're ever making picture frames or trimming out a project. It never fails that whenever I set my miter saw exactly to 45-degrees that it's never truly 45. I usually end up making several tiny adjustments and countless trips back and forth testing the fit until I find something perfectly square. Well, this little jig eliminates all of that and lets you cut perfectly square miters every time!

How? Well since we make it perfectly square to begin with, we can cut our first mitered angle using one side of the jig. Then we cut our second mitered angle using the other side. When those two angles are joined together, they will be just as perfect as the 90-degree angle of your jig.

Let's make it!

Rip the Strips:



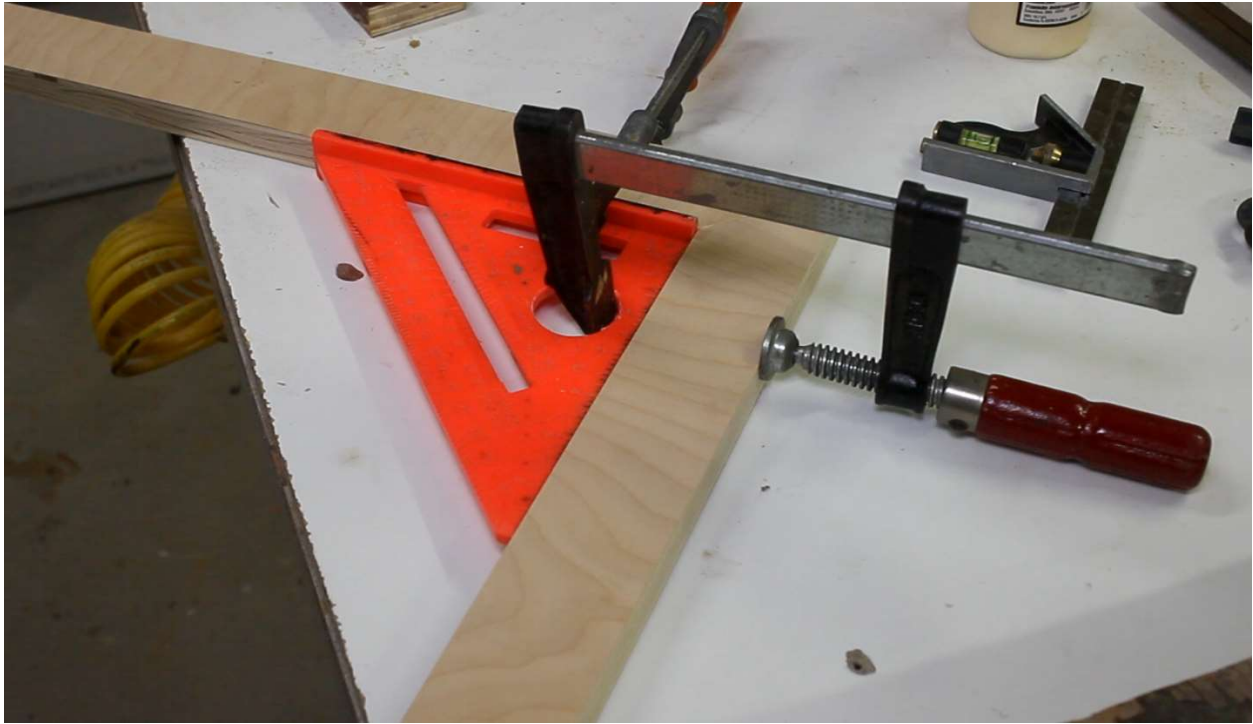
This'll be an easy one! Rip down two 2" strips about 1' 6" long and put a 45-degree angle on the ends. Try to get it as accurate as possible from your miter saw because it will just make the glue-up part that much easier.

Next, rip down another 2" strip to about 1' 10" and a 1 1/2" strip to about 1'.



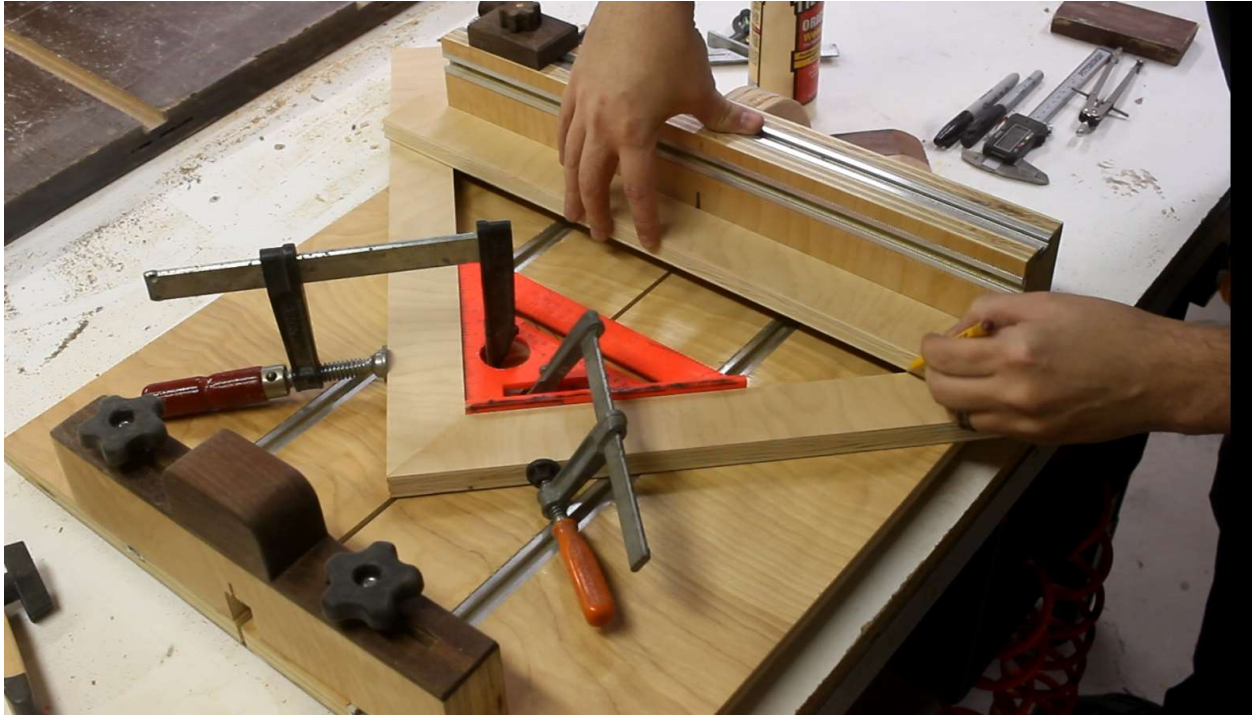
Gluing the joint:

This is by far the most important part of this build. The joint NEEDS to be perfectly square so do whatever you can to make it spot on! I took a plastic speed square and drilled a hole in it so that I could clamp it in multiple directions. You might already have a clamping square, I wish I did. Spread some glue and use whatever combination of squares and clamps to get this joint absolutely 90-degrees. Then give it some time to dry.



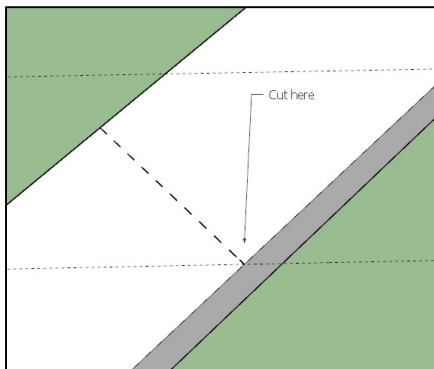
Adding the supports:

You can either wait until the strips completely dry or press on at this point. I placed the two strips on top of my crosscut sled and let the ends jut out the back on either side. Rotate the piece, if necessary, to position the tip of the joint at the center of the kerf channel on the sled. This doesn't have to be exact, but it does have to be close enough that a pass from the table saw will go right down the joint.



Then, take the remaining 2" strip that you cut and place it along the rear fence of the crosscut sled. Use a pencil and trace the edges where it overlaps the pieces below. This will show you where you need to trim the angled pieces.

Over at your miter saw, make your cut just where the back line intersects with the inside edge of the strip.



Now you can bring the angled section back to your crosscut sled and position just as you had it before and glue down the back support piece which should still line up with your pencil marks from before.



Next, I cut one 45-degree angle on the 1 1/2" strip that I ripped earlier. Then I made a 4 3/4" spacer and laid that down in front of the back strip with the 1 1/2" strip in front of that. I flushed up the angled edge with that of the jig and then, using a pencil, reached underneath and traced where it needed to be cut off on the other side. After cutting a 45 on the other end, I could then come back and glue that down onto the miter sled attachment as well.



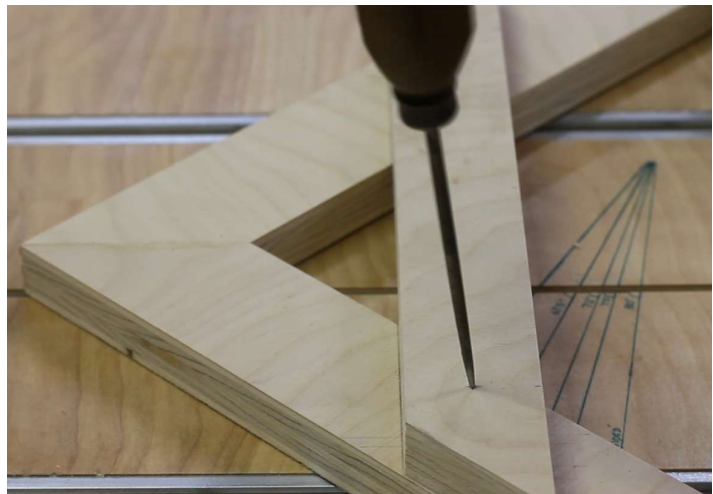
The last thing to do in this step is to trim the back corners. Mark on the back piece where the edges of the crosscut sled are and then take the jig over to the miter saw and trim off the excess.



Drilling the holes:

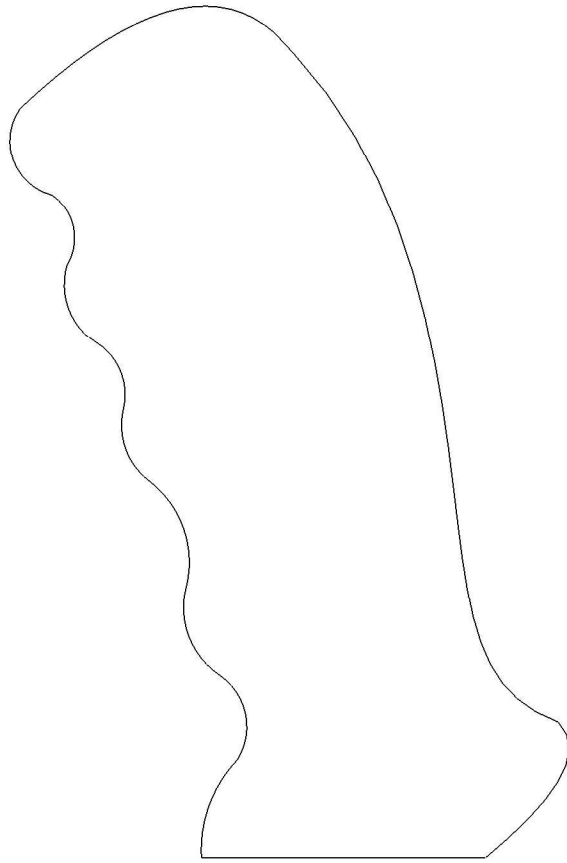
You'll want to measure and double-check but if things have gone according to plan, the location for the T-track bolt holes SHOULD be dead center of the 1 1/2" strip and centered to the 2" angled piece. However, check and make sure and if you need to adjust where you drill your hole then that's fine. We just don't want to drill a hole that doesn't line up with the track.

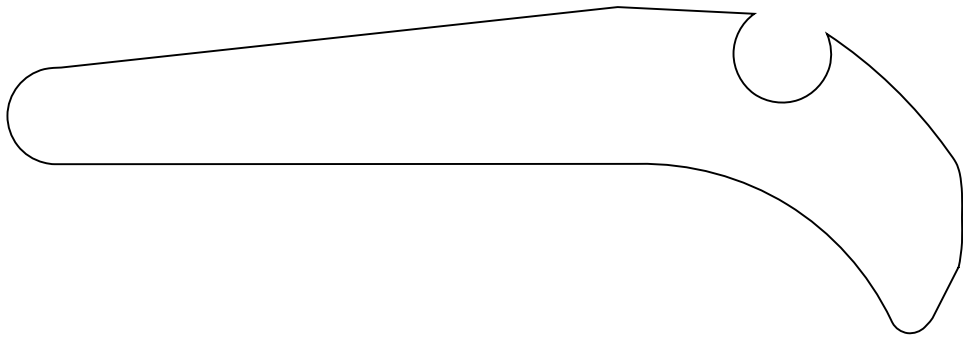
Once you've measured and located where to make your holes, drill them out over at the drill press using a 5/16" bit, drop your T-track bolts through, and put some knobs on.



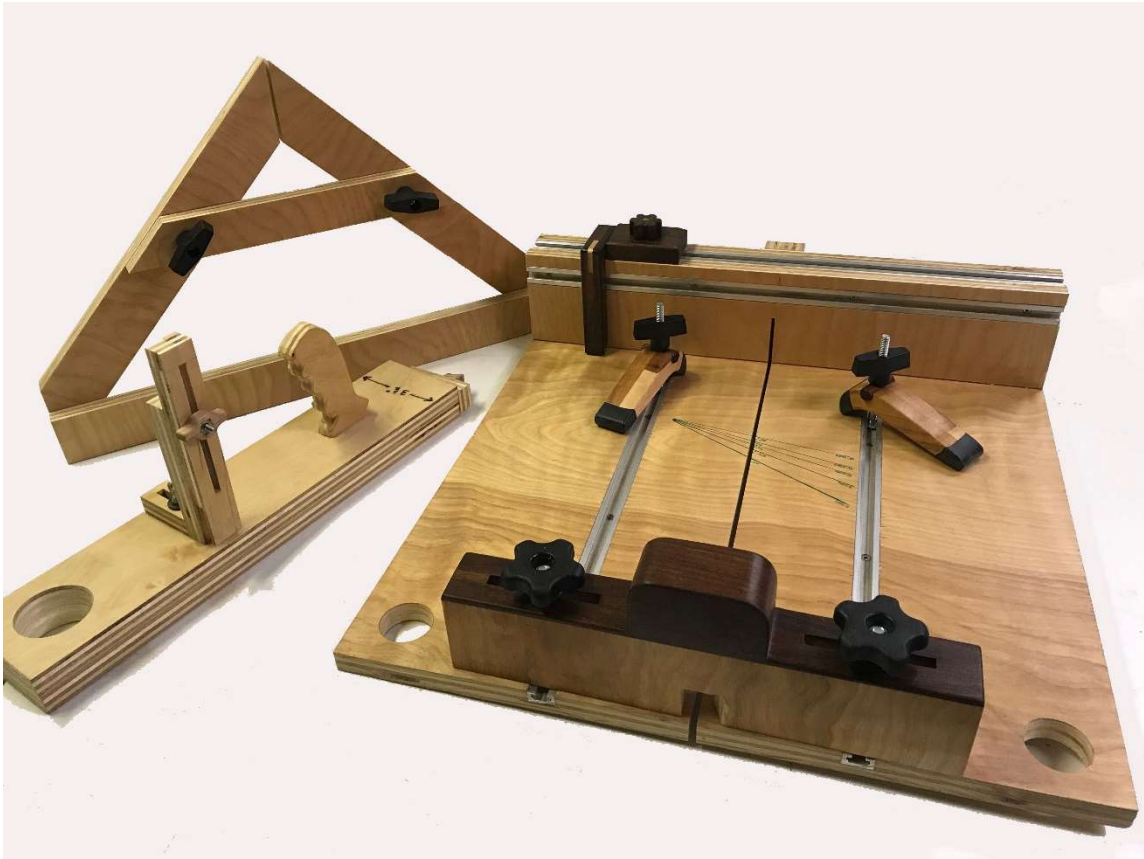
Once you've done that, you're done! Just slide the jig onto the T-tracks of your crosscut sled, press it up against the back fence, and tighten it down. Now you have a very easy and convenient way to cut perfect 90-degree miters for your projects!







Thanks!



I sincerely hope you enjoyed the video, the build, and the outcome! Thank you so much for supporting Fisher's Shop by purchasing these plans. I appreciate it very much and I'm grateful. I value each one of my viewers and especially those that go the extra mile to purchase the plans and replicate something that I designed and built. My channel grows primarily by word of mouth, so if you've enjoyed my videos and had fun building this project, please consider helping the channel grow by spreading Fisher's Shop videos to your friends and followers on social media. Thanks again!!

