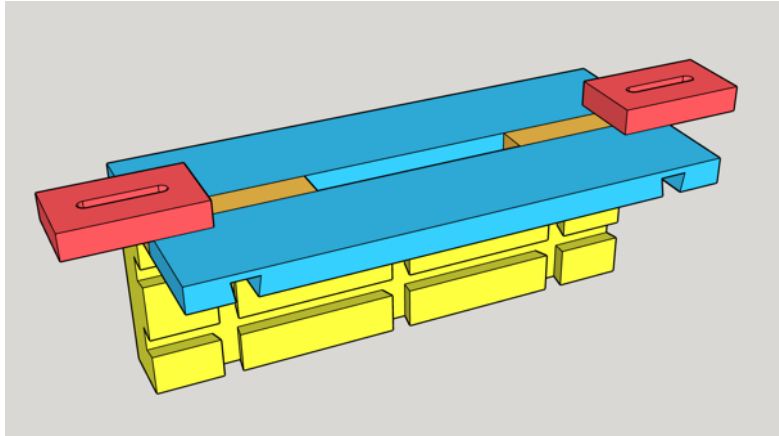




## MINI MORTISING JIG



### FINAL DIMENSIONS

10" long x 4-5/8" wide x 4" deep

### MATERIALS LIST

- 1** - 1/2" thick board at least 11" x 5"
- 1** - 1-1/4" thick board at least 11" x 4"
- 2** - 1/2" thick boards @ 1-1/2" x 18"

### HARDWARE LIST

(All linked on the website post and YouTube video)

- 1**- Matchfit Dovetail Nut Track Hardware
- 1**- Matchfit Dovetail Track Hardware Pack with knobs
  - 1** - 10-32 x 12" Threaded Rod
  - 2** - 1" long Flat Head Machine Screws
  - 2** - 1/4-20 knobs

\*There is also an optional fence that you can make from a 3/4" thick board that is 7"x20".  
For that, you will also need threaded inserts and knobs with a stud.

## PARTS OF THE JIG

### THE PLATFORM

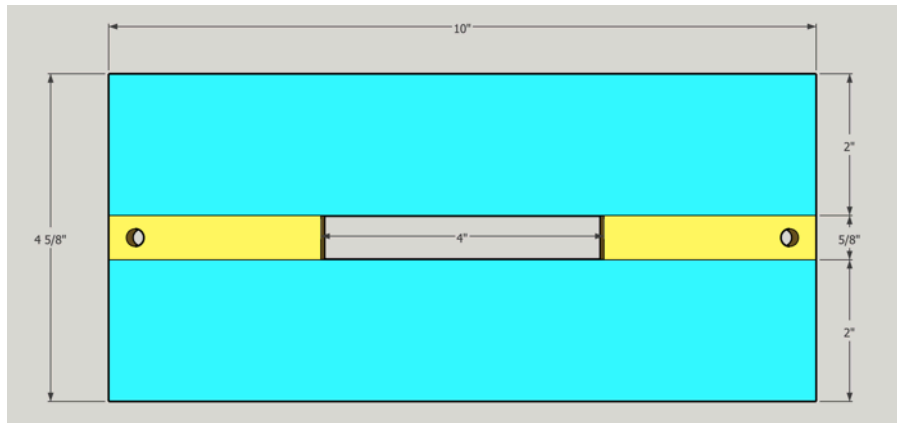
The platform is made from 4 pieces glued together. The final thickness should be 1/2"

You can start with 1/2" thick material, but it is best to plane it after glue up.

**Below are final dimensions.**

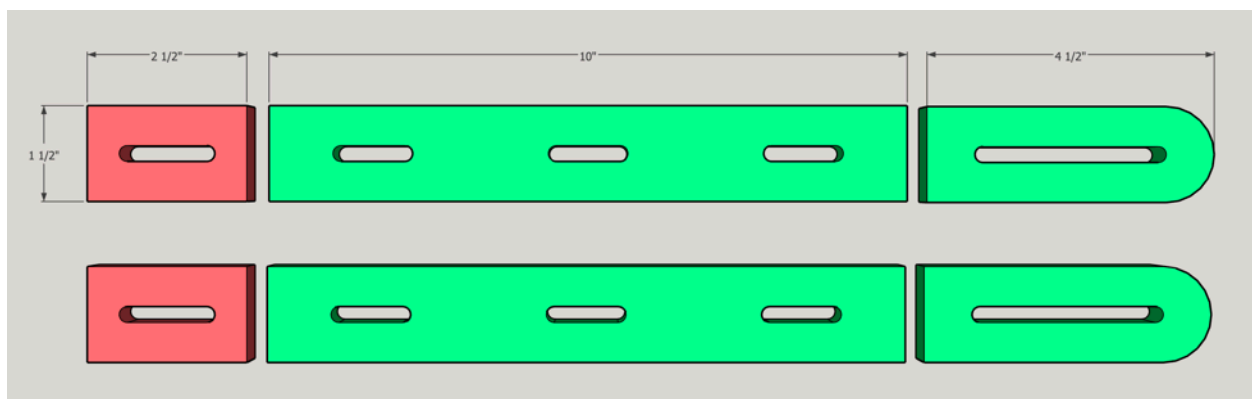
When preparing your pieces make them slightly oversize, they will be trimmed to the below final dimensions after glue-up.

(Except the 5/8" wide, orange, piece.)



### WIDTH STOPPERS & ALIGNMENT FENCES

These can really be cut to any size, their exact dimensions are not critical.



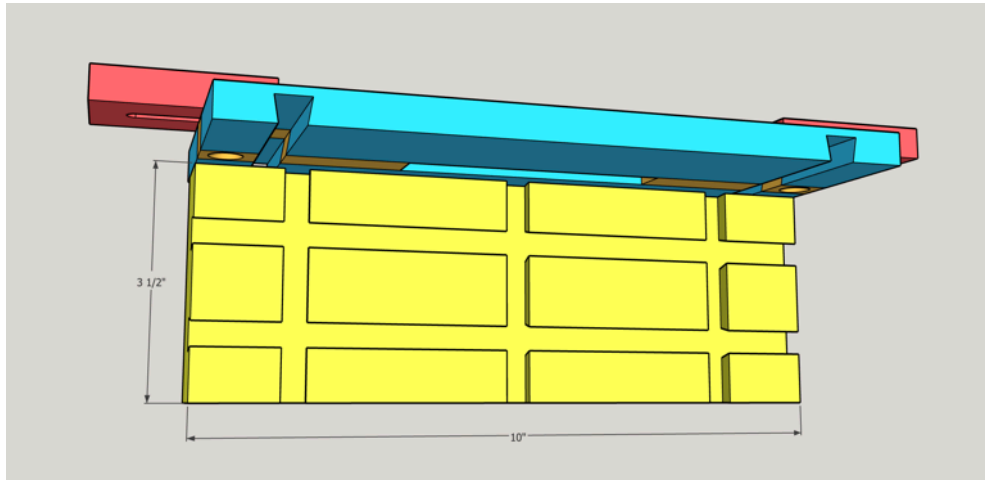
## THE FENCE

The fence is made from thicker 1-1/4" material.

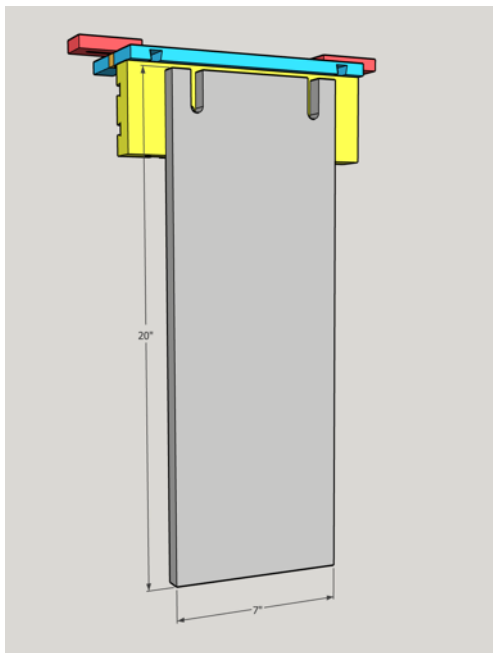
This exact thickness is not important. You just want it to be very strong and stable.

You can glue up 2 pieces to create this thickness if you need.

Again, **below are final dimensions**, prepare your piece slightly larger than this.



## (OPTIONAL) EXTENSION



This optional extension can be made from 3/4" thick material and the exact dimensions are also not critical.

You don't need this extension to use the jig, but there are certain times where it would come in handy.

## STEP 1

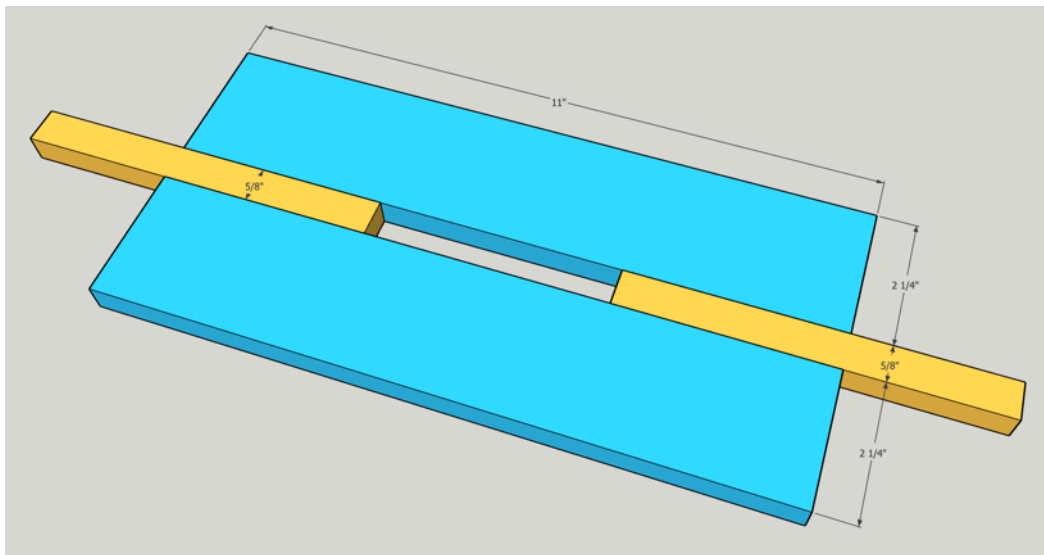
Cut the outer platform pieces (blue) to rough dimensions.

Only the 5/8" (orange) center pieces should be an exact width at this point.

**This is the most critical measurement on the whole jig.**

Make sure the center (orange) pieces are the same width as the outer diameter of the guide bushing you plan to use with the jig.

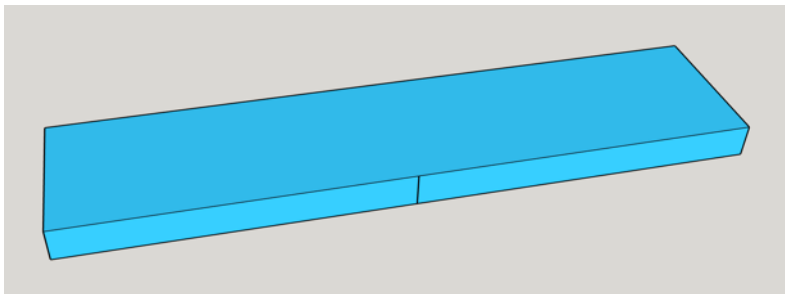
Refer to the YouTube video to see how this is done.



## STEP 2

Scribe a center line on the inside edge of one of the outer (blue) platform pieces.

This will be useful when using the jig and it is easier to do before glue-up.



### STEP 3

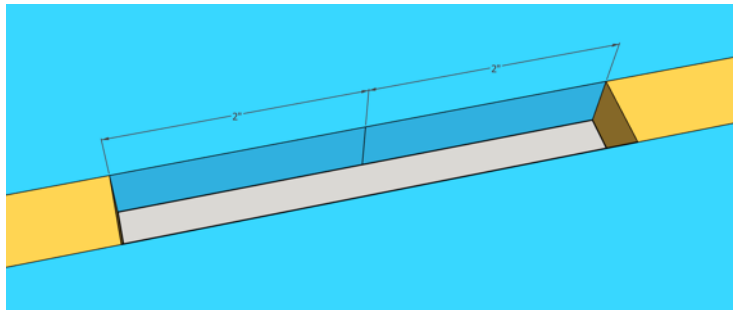
Glue up the platform!

Once you are certain the guide bushing will fit in the gap created by the center (orange) platform pieces you can glue it up.

The gap should be 4" wide.

You can make a spacer with a center line to create the gap, and to make sure the center line scribed in STEP 2 is actually centered.

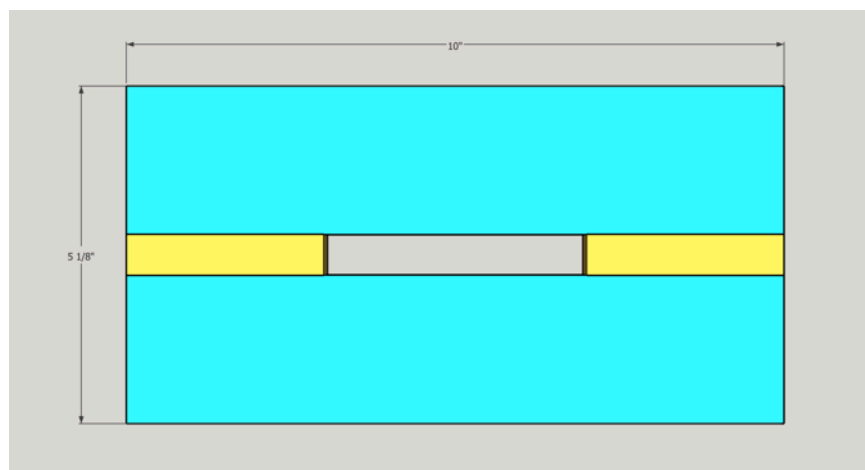
(Refer to YouTube video to see how this is done, but it actually does not need to be perfect since you will set your material to that center line and then you set your width stops based on that center line.)



### STEP 4

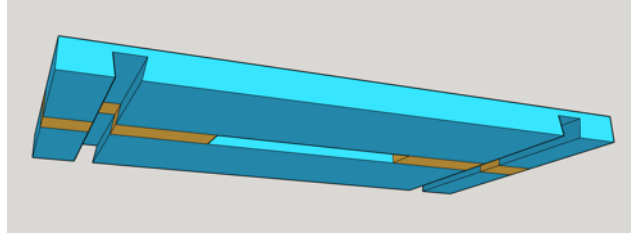
After the glue dries, plane the platform to final 1/2" thickness and cut to final **length** which is 10" long.

(Don't cut to final **width** just yet...)



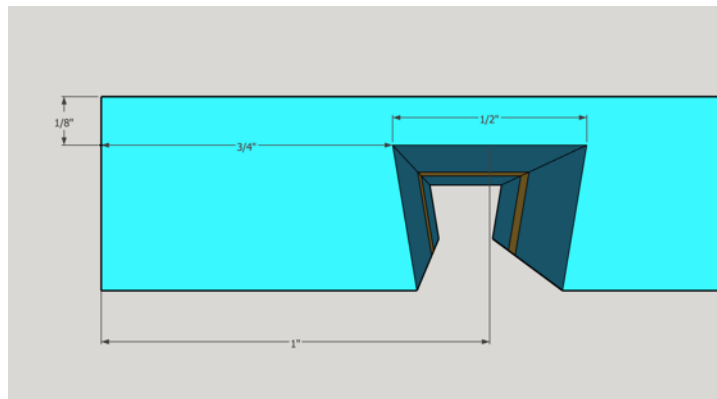
## STEP 5

Make two dovetail slots that go across the bottom of the platform.



These dovetail slots should be centered about 1" from either end of the platform.

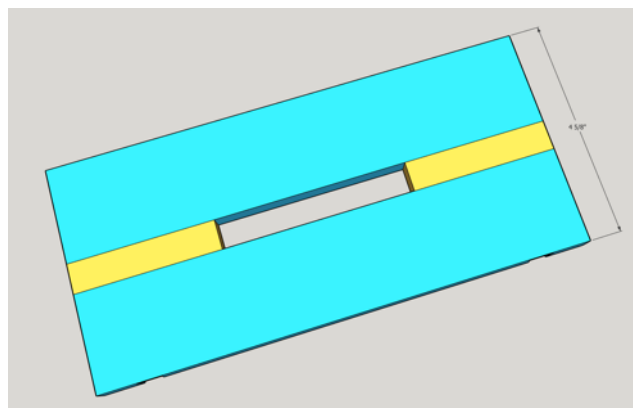
Do not worry about getting this exact...



## STEP 6

Now trim the platform to final width.

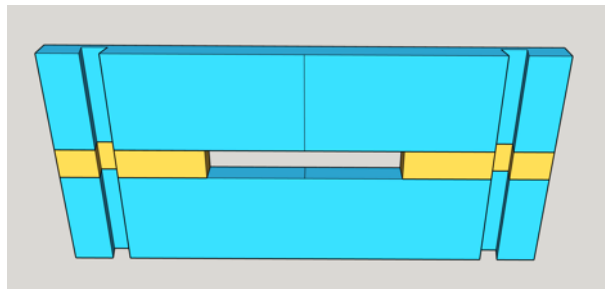
Make sure the outside edge of the jig is parallel with the inside edge of the opening.



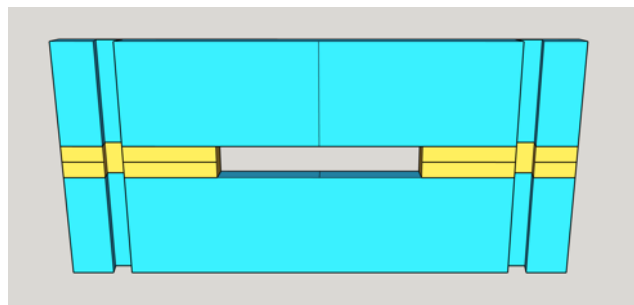
## STEP 7

Scribe additional center lines on the underside of the platform.

Using the center line scribed in STEP 2 as a reference, make another center line in that location going across the width of the board.

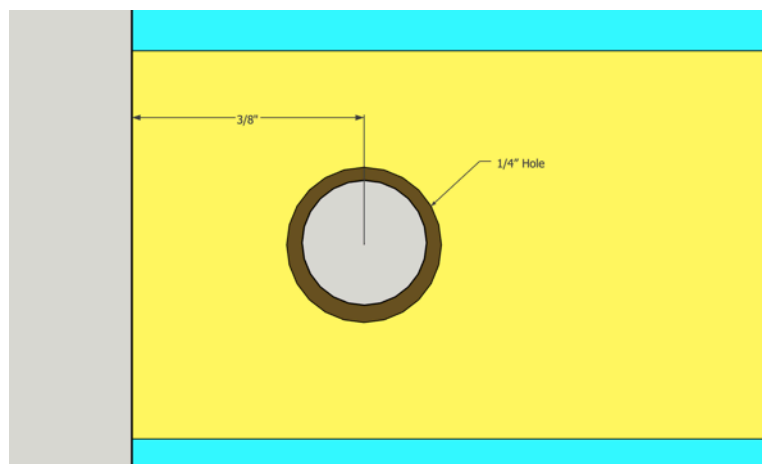


Then scribe another center line going along the length of the board. Fill these lines in with pencil to make them more visible.



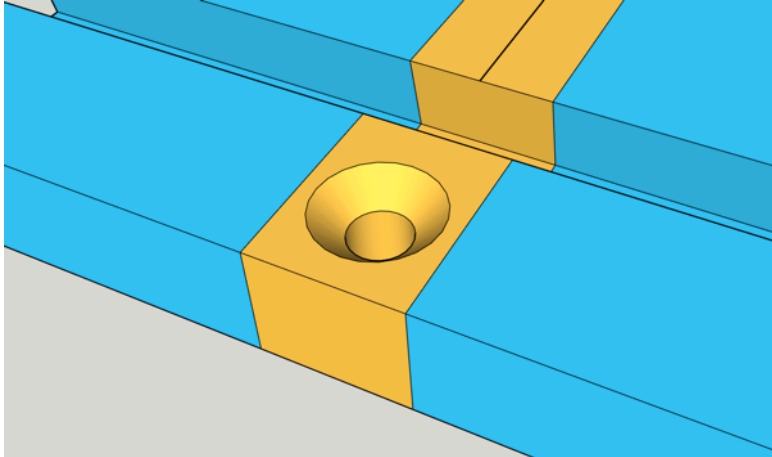
## STEP 8

Drill 1/4" through holes on each end of the platform. This hole should be roughly 3/8" from the end.



## STEP 9

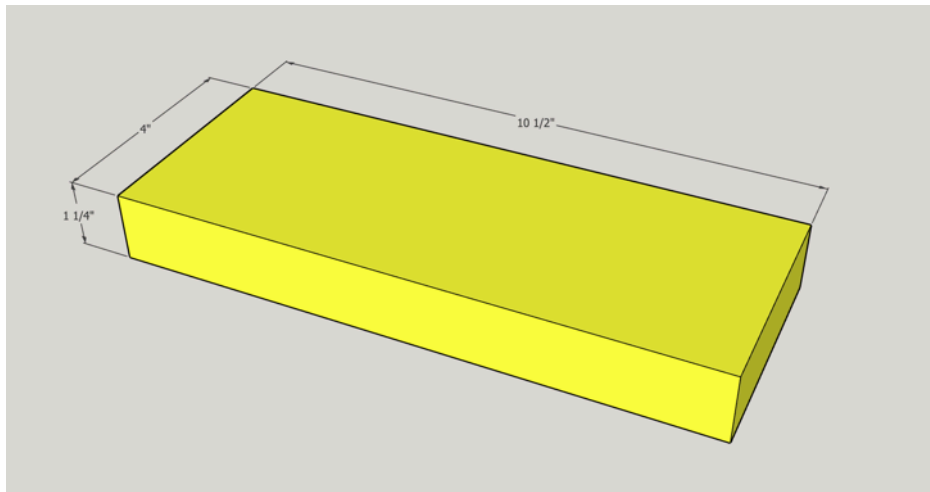
Countersink those holes on the underside of the platform enough so that the Flat Head Machine Screws will be flush against the bottom of the platform.



The platform is done! Time to work on the fence!

## STEP 10

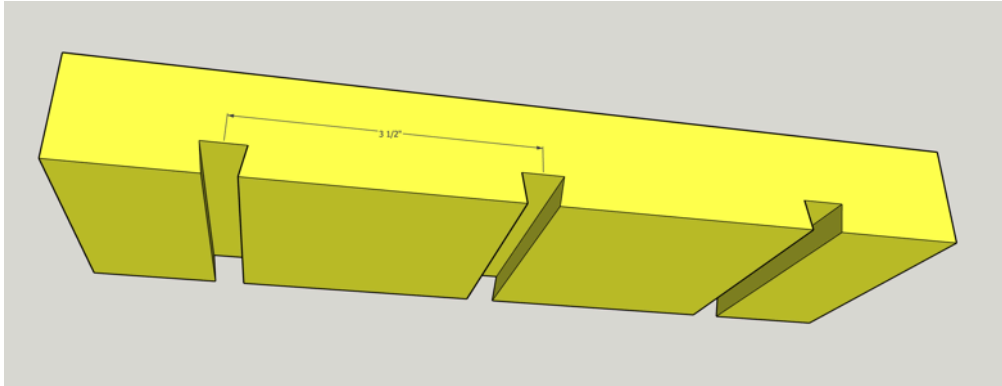
Cut the fence to rough dimensions.





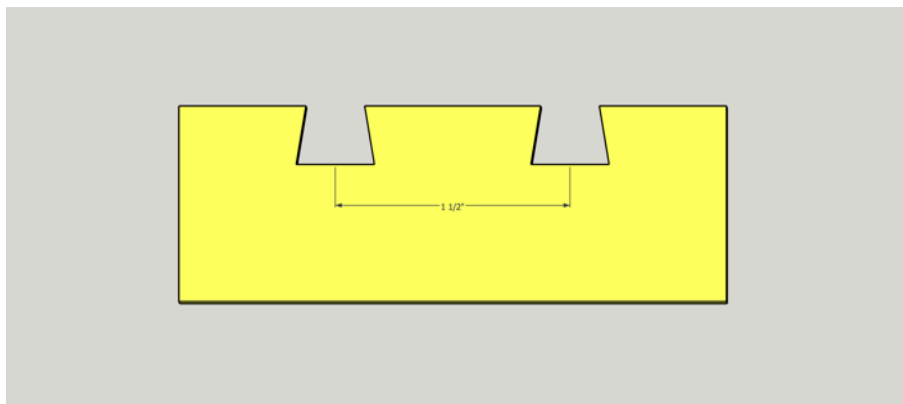
## STEP 11

Route 3 dovetail grooves going **across the grain first**.  
Measuring from the center of the board, make these grooves 3-1/2" apart.  
This distance is not critical, so don't fret about it too much...



## STEP 12

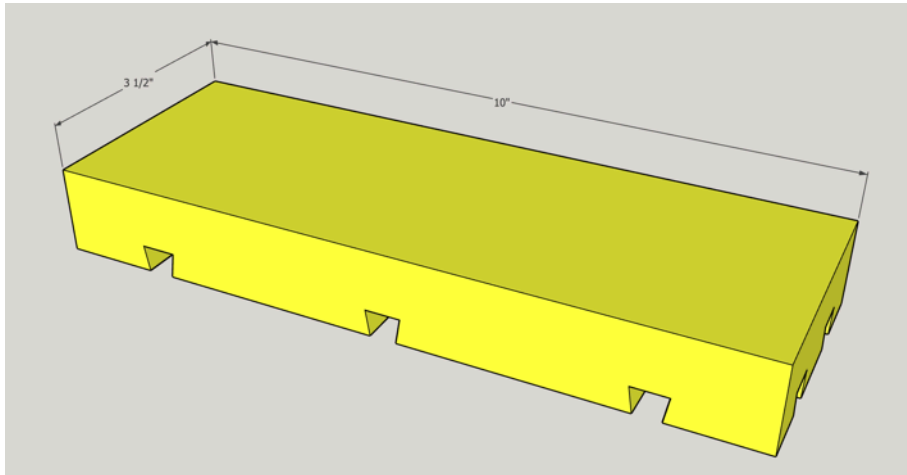
Route 2 dovetail grooves going **with the grain next**.  
These should be spaced roughly 1-1/2" apart.  
So measure 3/4" out from center to get those locations.  
Again, really not critical though.



Routing **across the grain first**, then **with the grain second** will eliminate any tear-out that will occur at the back of the cross grain cuts.

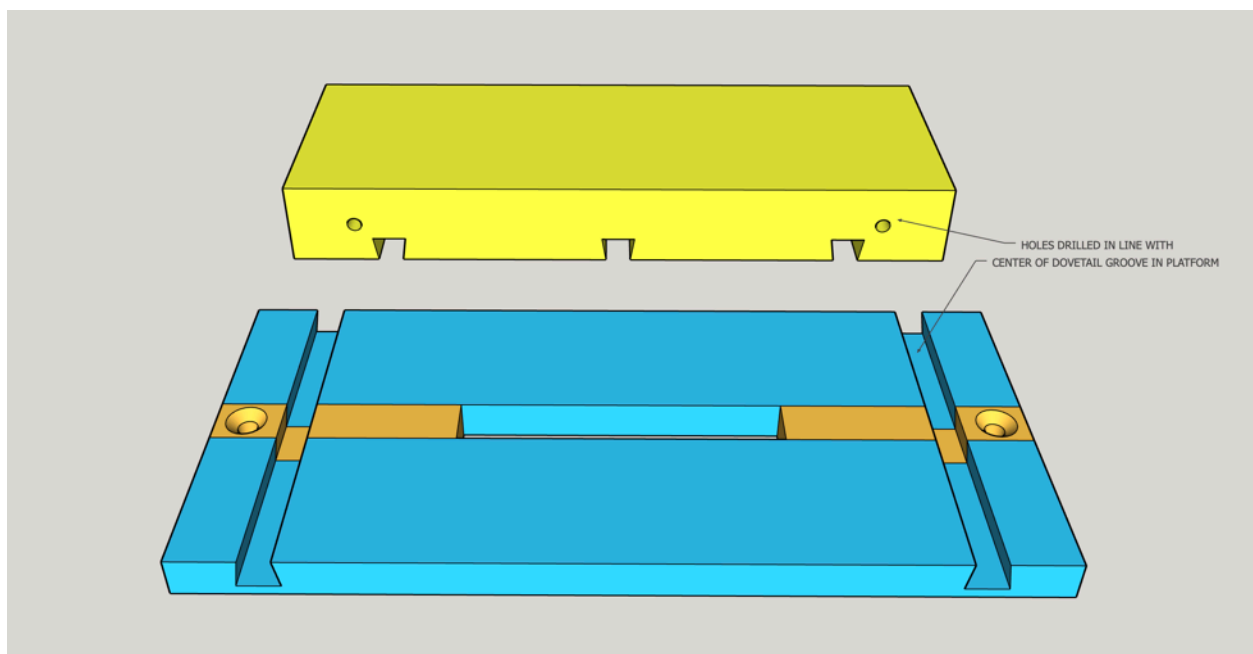
## STEP 13

Cut the fence to final dimension, 10" x 3-1/2".



## STEP 14

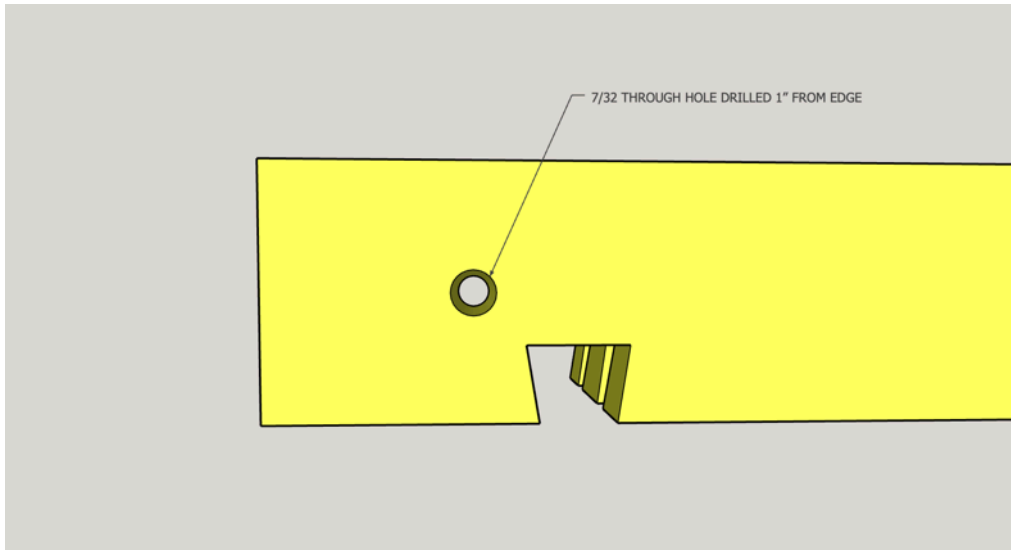
Drill the through holes in the fence that attach it to the platform.  
To get exact measurement line up the fence next to dovetail slots in the platform and try to mark the center.



These holes are roughly 1" from the end since the center of the dovetail slot routed in the underside of the platform was 1" from the edge.

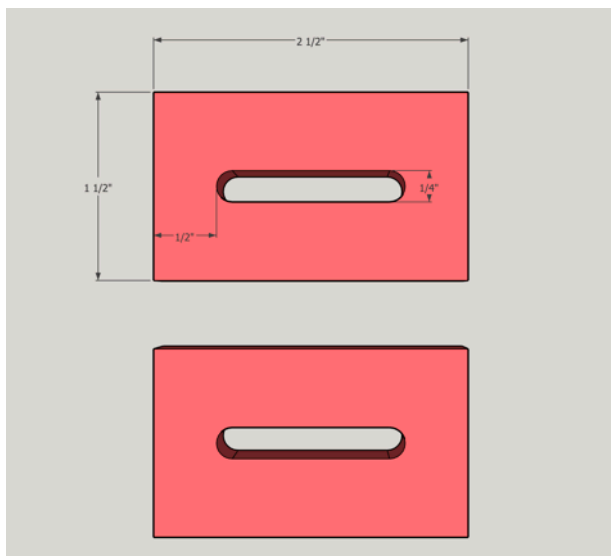
The hole is larger than the threaded rod you will use, so there is some room for error.

If you don't have a 7/32 drill bit, you can just make this a 1/4" hole.



## STEP 15

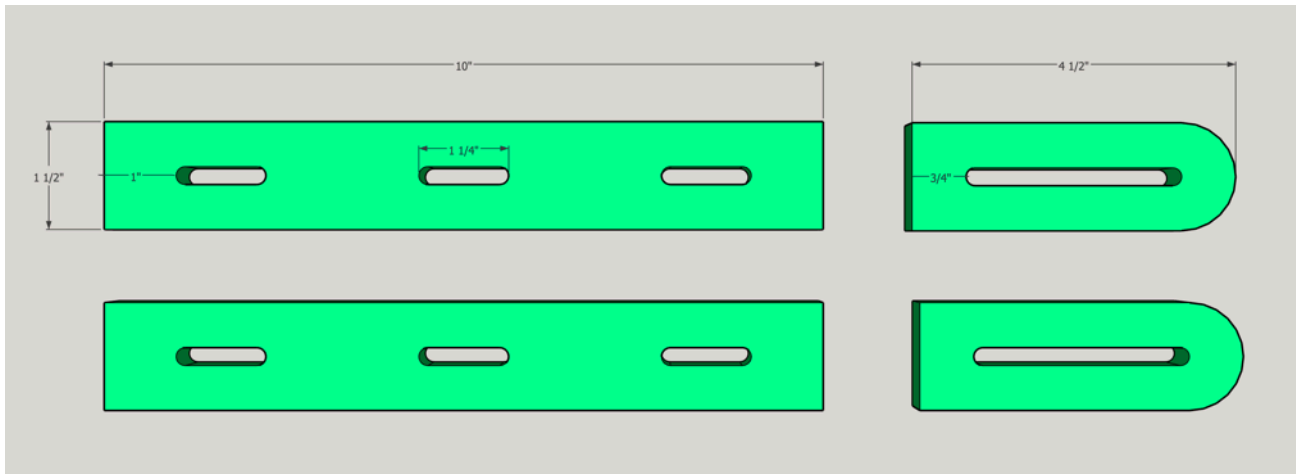
Make the width stoppers and aligning fences.



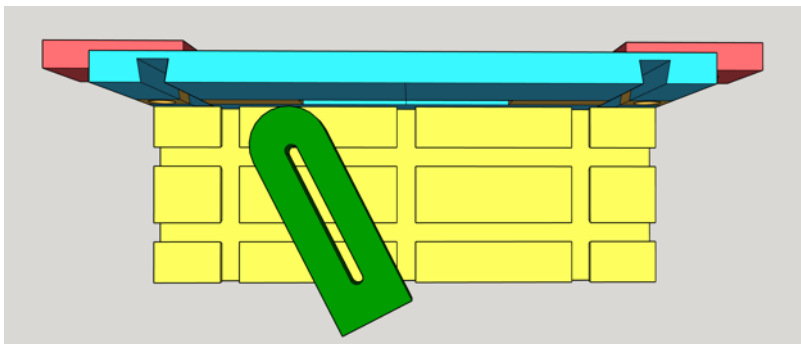
Make a 1/4" wide groove about a 1-1/2" long for the width stoppers.

It is easier to make these when the piece is longer. So route the grooves in longer pieces, then cut them to 2-1/2" long after.

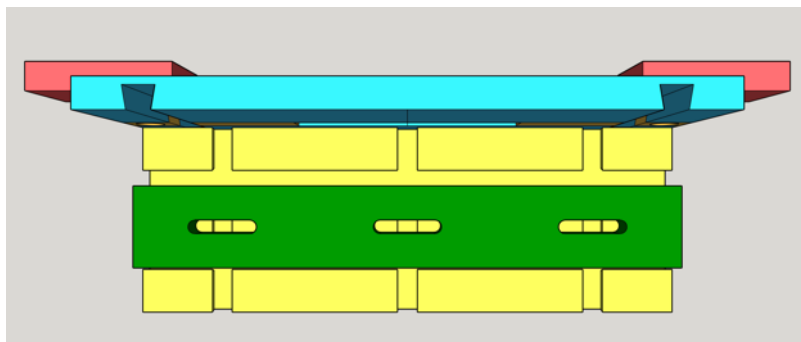
The alignment fences are also made from 1/2" thick material.  
The dimensions below are just a guide, this does not need to be exact at all.



The rounded end on the shorter alignment fences allow you to set it for any angle.



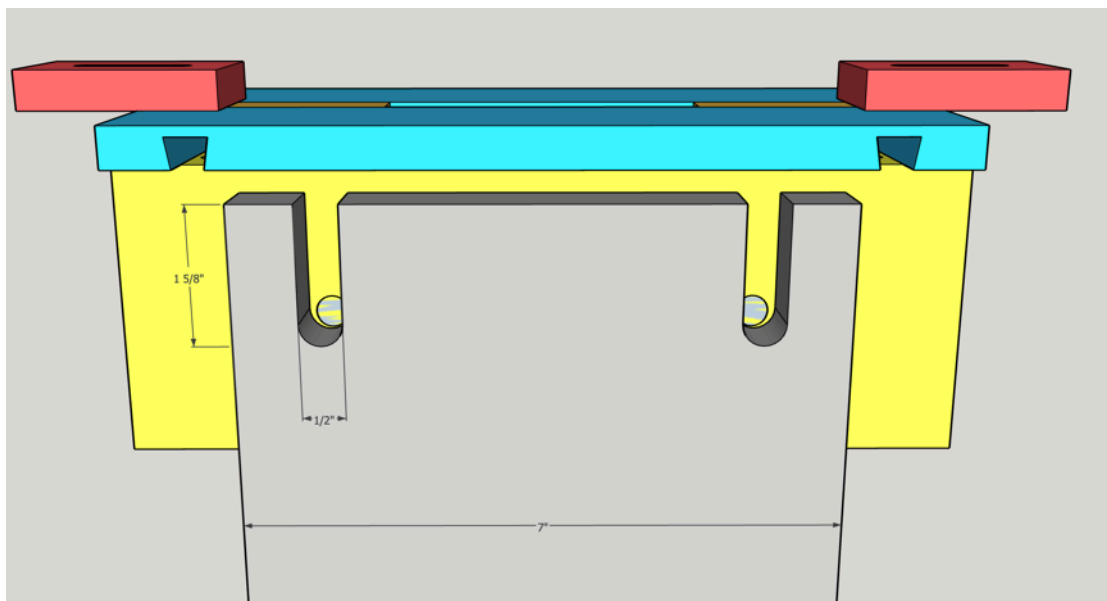
The three slots in the longer alignment fence correspond to the three dovetail slots in the main fence.



## STEP 16

Make the optional extension.  
Drill  $3/8$ " holes about 5" apart on the back of the main fence.  
Then install threaded inserts.

Then drill  $1/2$ " holes spaced 5" apart on a board you will use for the extension.  
You can leave them as holes, or you can make them slots, like below.



## STEP 17

Cut the 12" long threaded rod in half and use thread locker to permanently affix them to the Matchfit Dovetail Track Nuts.

**And it's done!**

**Check out the full build video and website article to see how to assemble and use it!!**