

# HART™



Laptop Stand

## PROJECT PLAN

**Finished Dimensions:** 20"W x 12"H x 17"D

**Skill Level:** Beginner

# Materials

Item	Qty
1/2" x 24" x 48" Plywood*	1
#6 x 1" Flat Head Phillips Wood Screw	
Sandpaper**: 150g, 220g & 320g	
Drill Bits: 1/16" & 5/8" Spade Bit	
Wood Glue	

\* Board Dimensions are "nominal". Actual dimensions are smaller due to lumber industry standards. Cuts are actual length.

\*\* Starting grit will depend on board surface condition, a rough surface will require starting with a coarse grit first.

Grit is measured in the coarseness of the particles on the sandpaper. The lower the grit number, the coarser the paper. Heavy sanding would require 60 to 80 grit, medium sanding would require 120 to 220 grit, and finish sanding would require 320 to 400 grit. Super fine sanding would be 600 grit and higher.

A select/premium board or plywood comes with a smoother surface finish. It is clear or has very few tight knots, and it will have straight and sharp edges. This grade of wood pairs well with other boards or panels better and requires less time to sand and finish.

# Tools Used



Circular Saw



Drill/Driver



Jigsaw



Orbital Sander



Tape Measure



20V 1.5Ah Battery



20V 4.0Ah Battery



Charger



Safety Glasses



5/8" Spade Bit



Countersink Bit



Drill Bits



Phillips Dr. Bit

Also Need:  
Drawing Compass  
Clamps

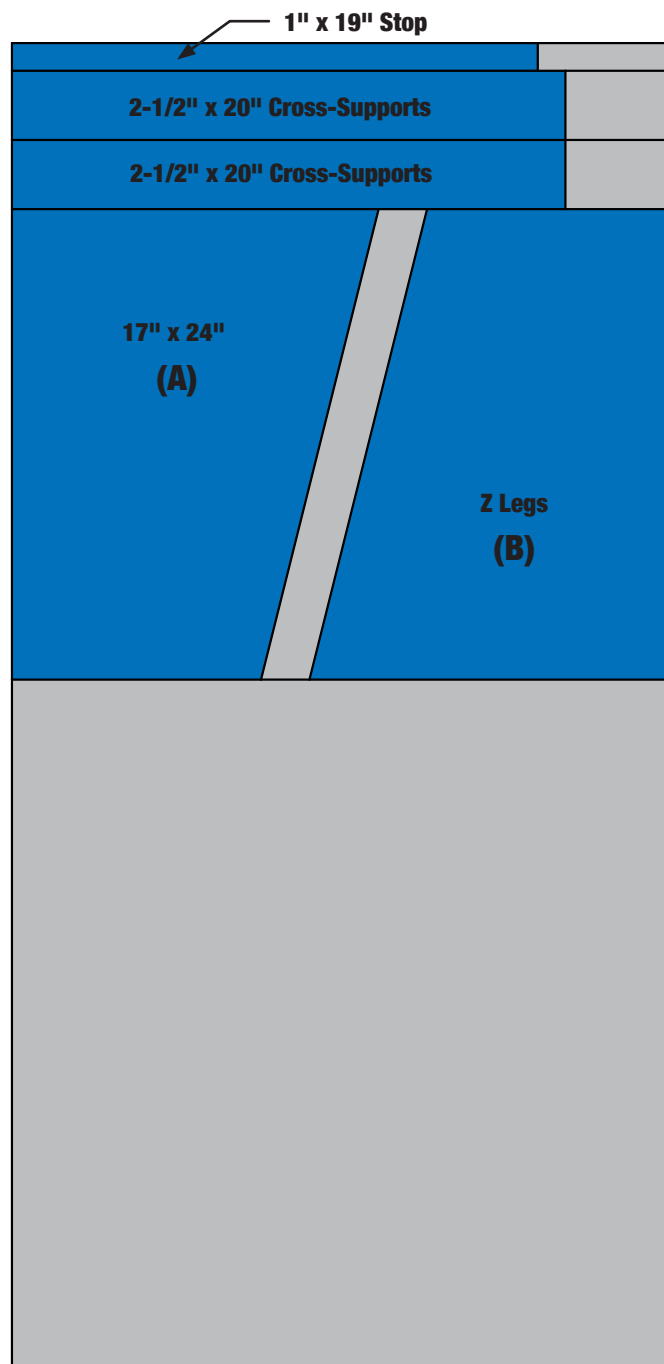
**Battery Tip:** A 4.0 Ah battery is recommended to be paired with high amp draw tools for maximum efficiency.

# Lumber Cut List

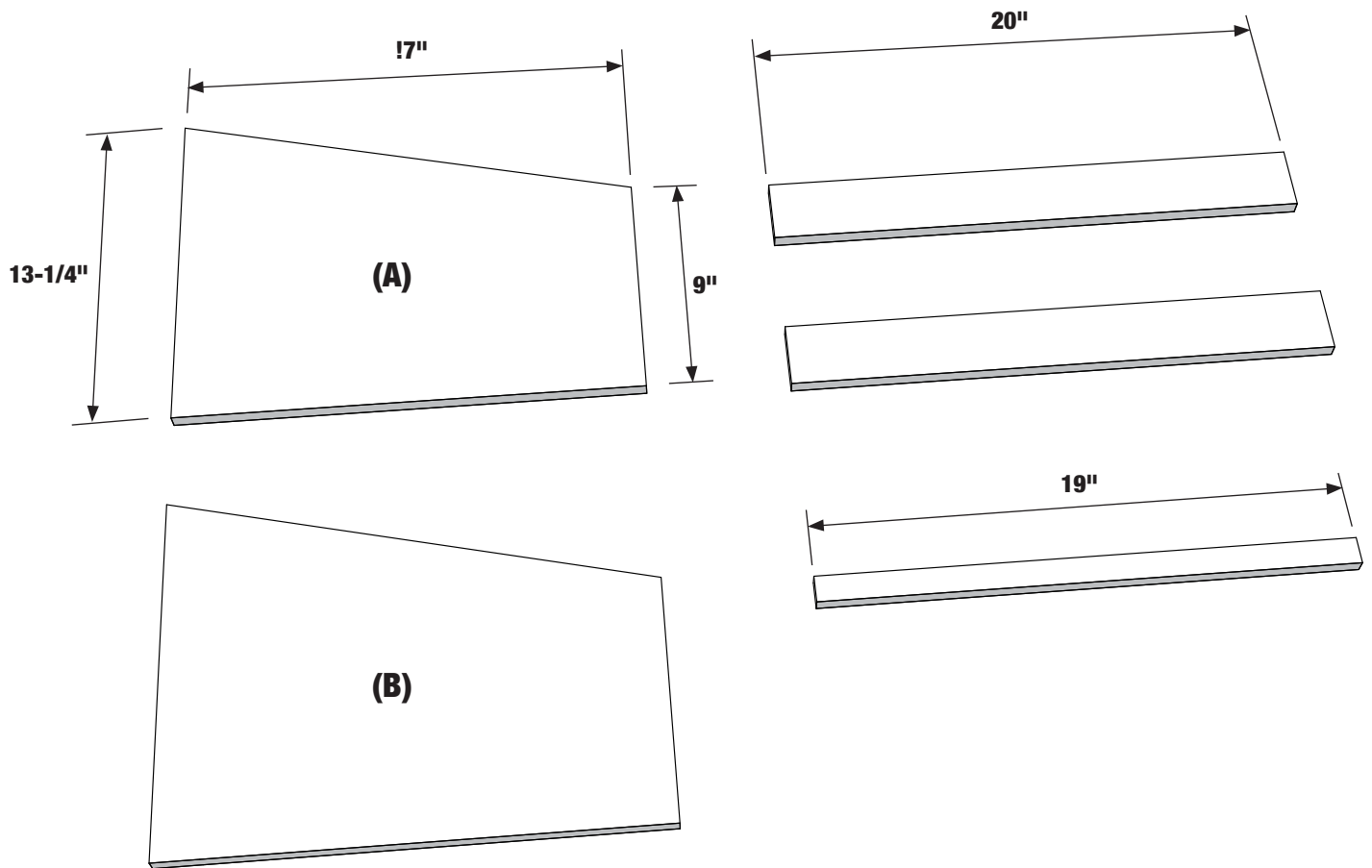
Board*	Description	Cut to	Qty
1/2" x 1"	Stop	19"	1
1/2" x 2-1/2"	Cross-Supports	20"	2
1/2" x 17"	Z Legs (A&B)	24"	2

\* Board dimensions are "nominal." Actual dimensions are smaller due to lumber industry standards. Cuts are actual length.

## Lumber & Sheet Layout Guide



# Lumber & Sheet Cut Layout Guide



# Assembly Instructions

## Step 1

Cut out all material using the Lumber & Sheet Cut Layout Guide.

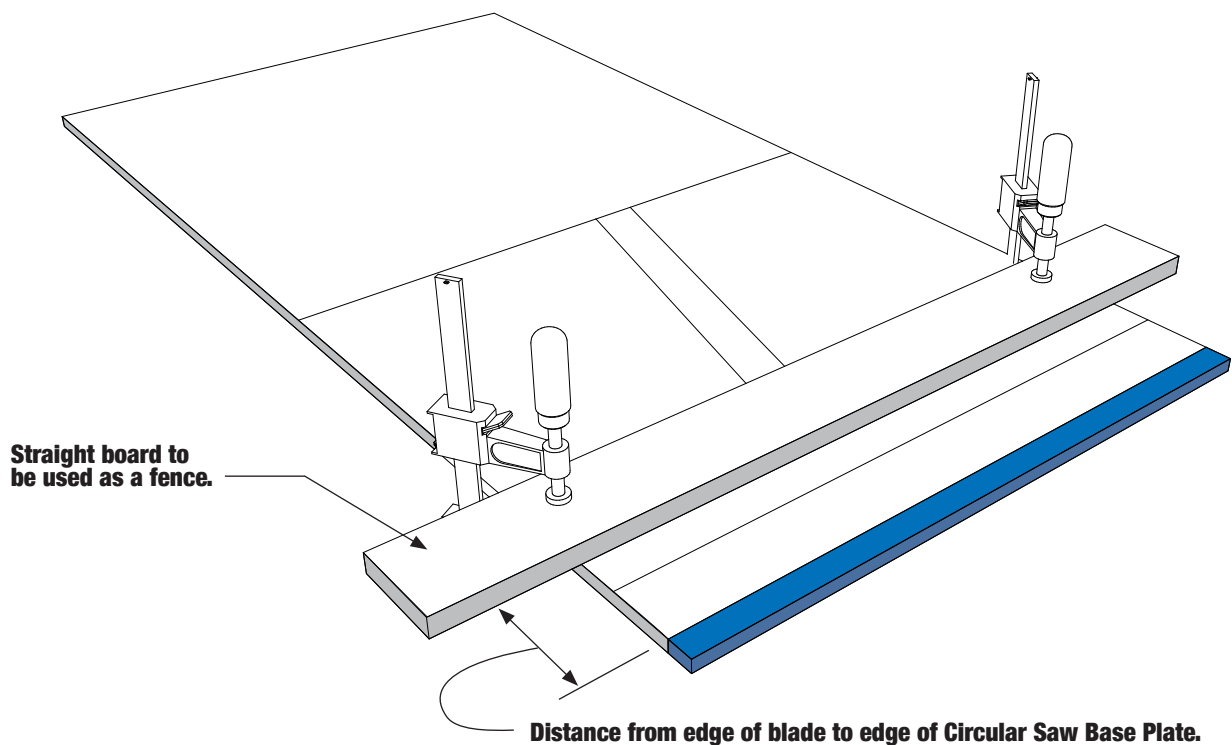
Group all of the straight cuts together. Start with the smallest panels first.

Use a straight board and clamps to create a fence. This will help guide the edge of the Circular Saw in a straight line.

To safely cut the small boards, start by cutting them first. Clamp the panel to a sturdy support. Then measure the panel height and clamp the fence in the appropriate position. Be sure to account for the measurement of the edge of the blade to the edge of the Circular Saw base plate when setting your fence.

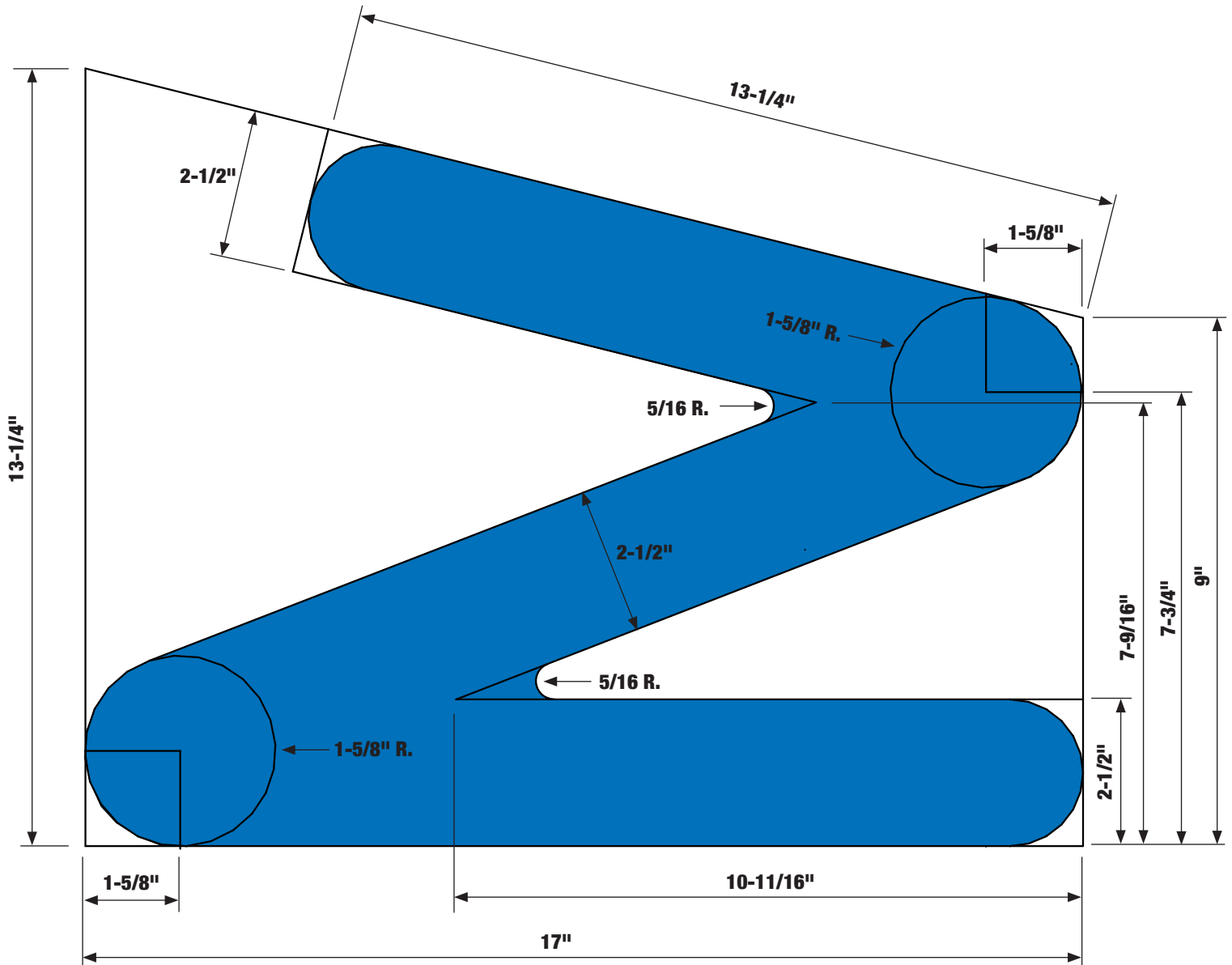
Move the fence and clamps back and continue cutting the panels.

After cutting the 17" x 24" panel, realign the fence to cut the angles on the Z legs (A&B).



## Step 2

Use the diagram below to draw the Z legs dimensions on the (A&B) panels.



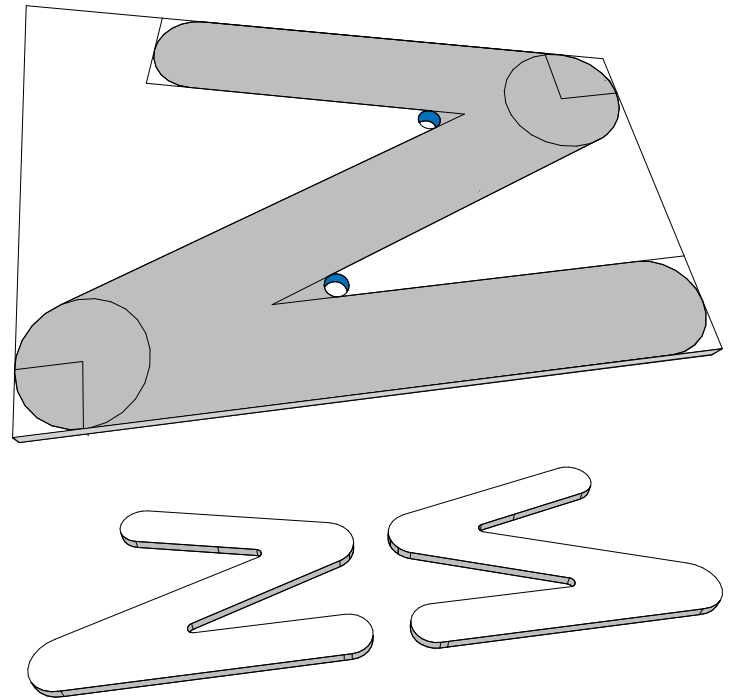
## Step 3

Using a 5/8" Spade Bit, drill holes in the (2) inside corners of the Z legs.

**H Tip** -To help prevent the holes from tearing through the underside of the panel and damaging your workspace, take a scrap board and clamp it tightly to the bottom of your panel. Drill through the top panel into the bottom board.

Use a Jigsaw to cut out the (Z) shape. Match the tangency of the (2) 5/8" holes to the Jigsaw cut.

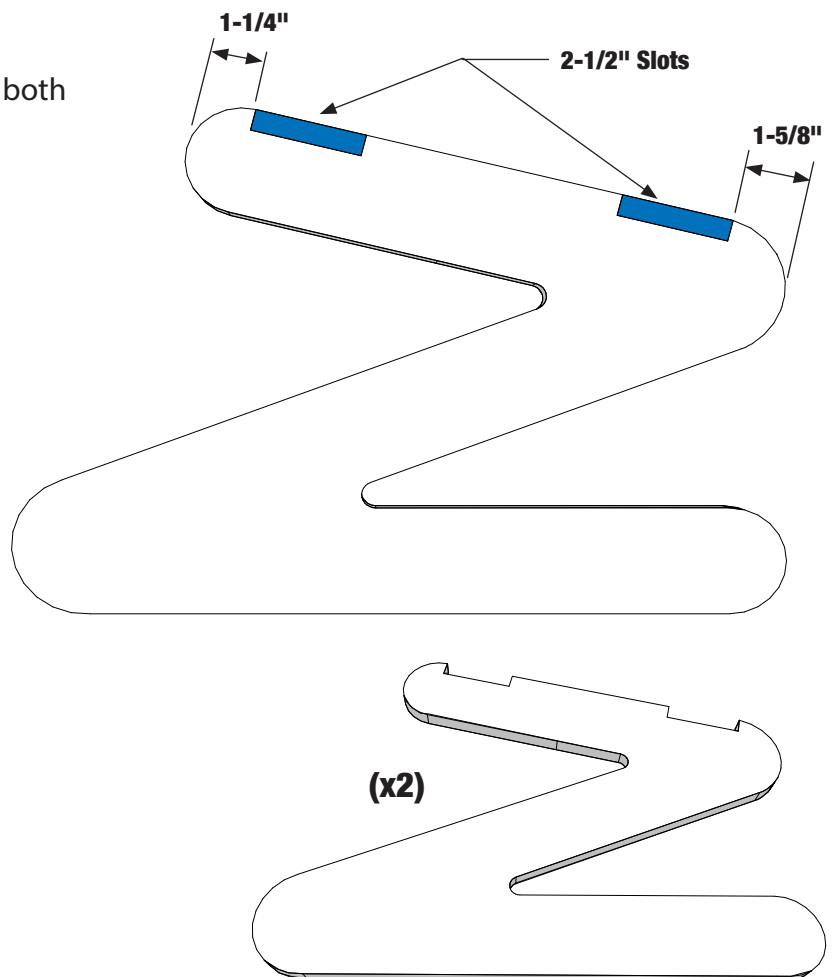
Repeat this step for the second Z leg.



## Step 4

Use the diagram to measure and mark the locations for the (2) 2-1/2" cross-supports on both Z legs. Slots are 1/2" deep.

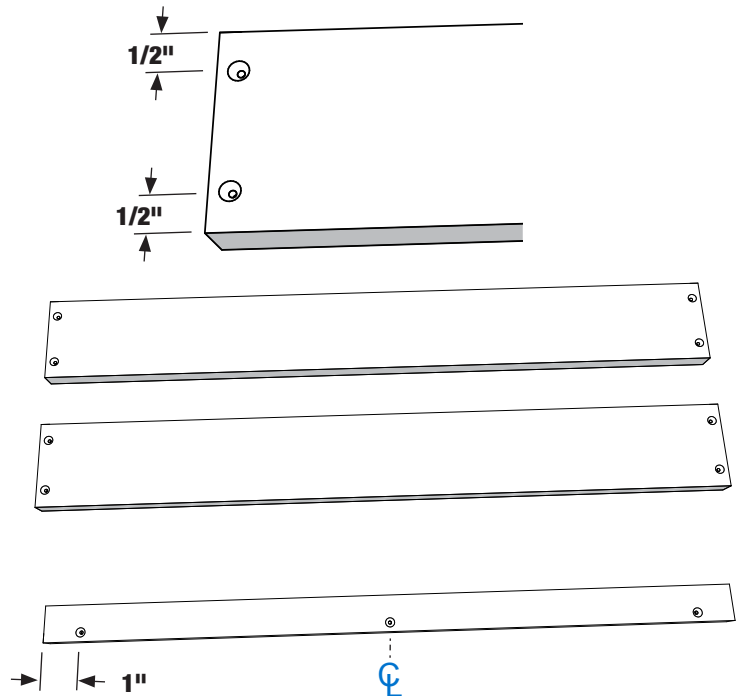
Use the Jigsaw to cut out the slots.



## Step 5

Use the Countersink Bit to drill holes in the locations shown in the diagram. Start by drilling holes on both ends of the (2) cross-support boards. Holes are to be 3/8" from the ends and 1/2" from the sides.

The 1" x 19" stop boards will have (3) holes: (1) in the middle and (2) set at 1" from the end and 3/8" from the bottom edge.

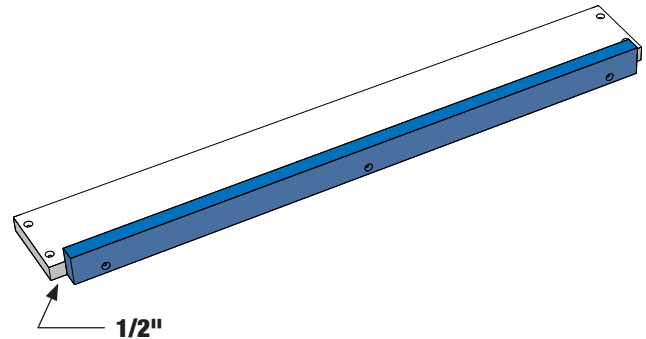


## Step 6

Center the stop board on (1) of the cross-support boards. Be sure to match up the bottom edges. Clamp them together and use the countersink hole as a guide to drill a 1/16" hole 1/2" deep into the cross-support board. This will help prevent the board from splitting.

Attach by gluing and screwing the boards together using the #6 x 1" wood screws.

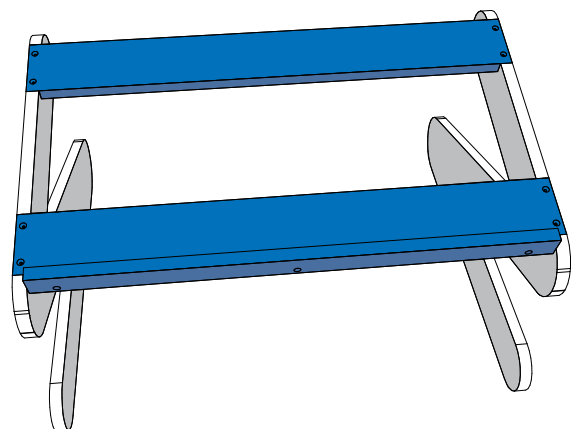
**H Tip -** Wrap masking tape around the Drill Bit to set the depth of the hole. When the tape meets the wood, stop drilling.



## Step 7

Attach the (2) cross-supports to the Z legs using the same method as in Step 6.

Let the glue dry before finishing the project.

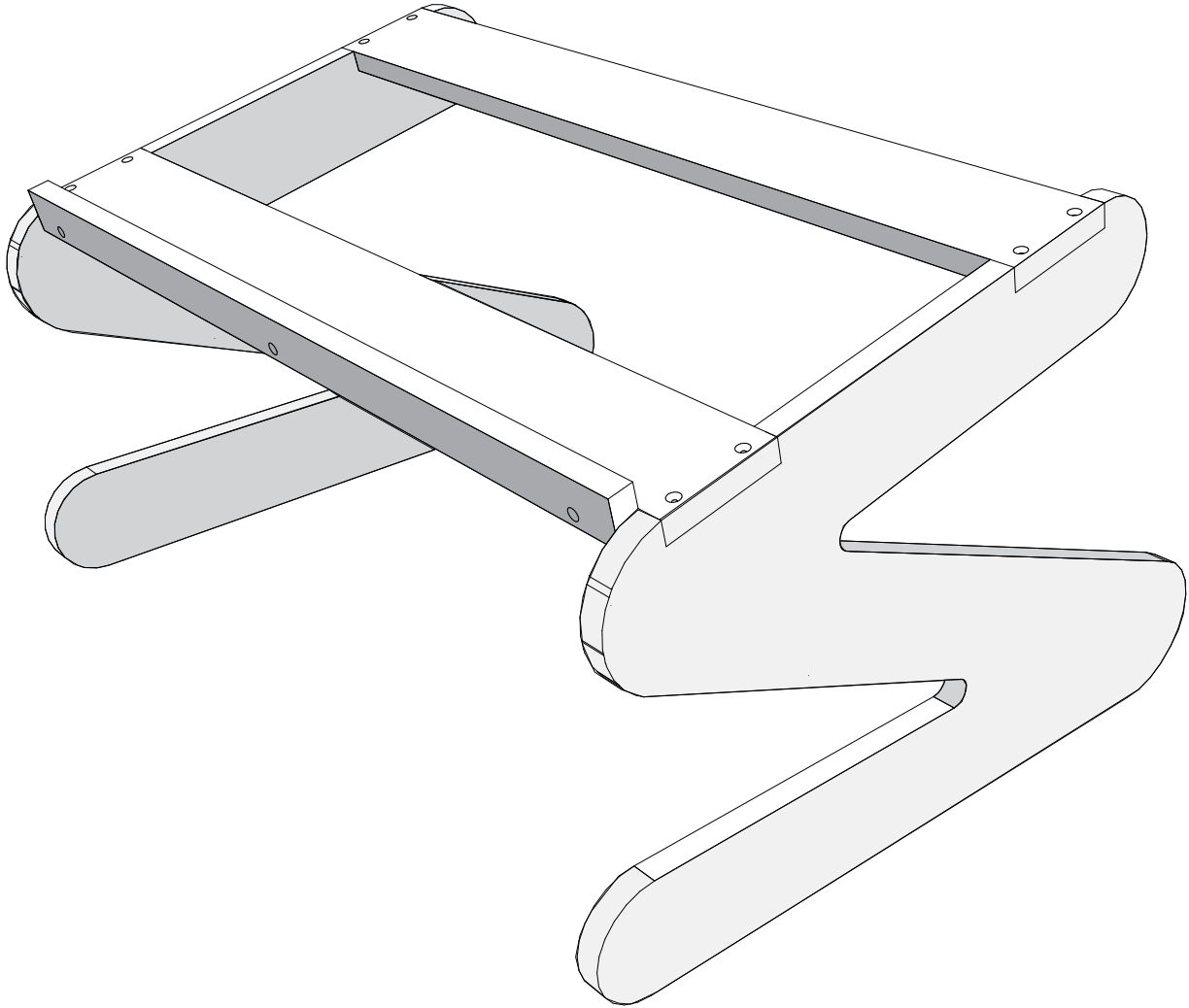




## Step 8

Sand and finish to your desire.

Project complete!



**H Rougher finish** – Use 60-80 grit sandpaper to hand sand with the grain of the wood.

**Smoother finish** – Use 60-80 grit sandpaper to remove scratches & imperfections.  
Followed by using 120-220 grit to smooth.

**Finish Sanding** – Use 320-400 grit sandpaper

**Super fine sanding** – Use 600+ grit sandpaper

