

HART™



Centerpiece

PROJECT PLAN

Finished Dimensions: 15-3/16"W x 6-3/8"H x XX"3-1/2"

Skill Level: Beginner


Materials


Item	Qty
1" x 4" x 48" Board*	1
5/16" x 36" Wooden Dowel	1
Glass Vase †	3
Wood Glue	
Sand Paper**: 150g, 220g & 320g	
Drill Bits: 5/16"	
Hole Saw: 2"	

* 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.

† This Project Plan is made for vases that are less than 2" wide at the top and at least 5-11/16" tall. Once the vases are installed, they cannot be taken out. Therefore, you will need to adjust the hole diameter and height of your Centerpiece if your glass vases do not align with these measurements.

 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



Miter Saw

or



Circular Saw



Drill/Driver



Orbital Sander



Multi-Tool



20V 1.5Ah Battery



20V 4.0Ah Battery



Charger



Tape Measure



Hammer



Drill Bits




Hole Saw Set



Safety Glasses

Also Needed:
(2) 12" Bar Clamps

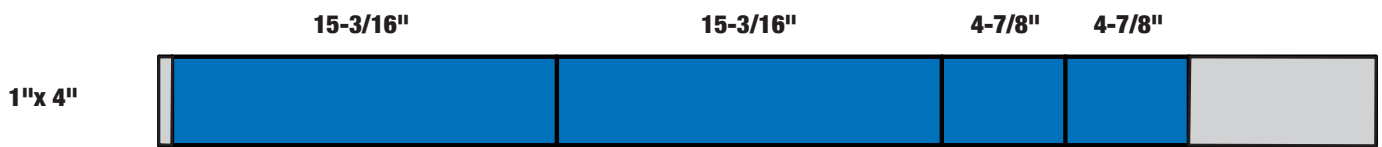
 **Battery Tip:** A 4.0 Ah battery is recommended to be paired with high amp draw tools for maximum efficiency.

Lumber Cut List

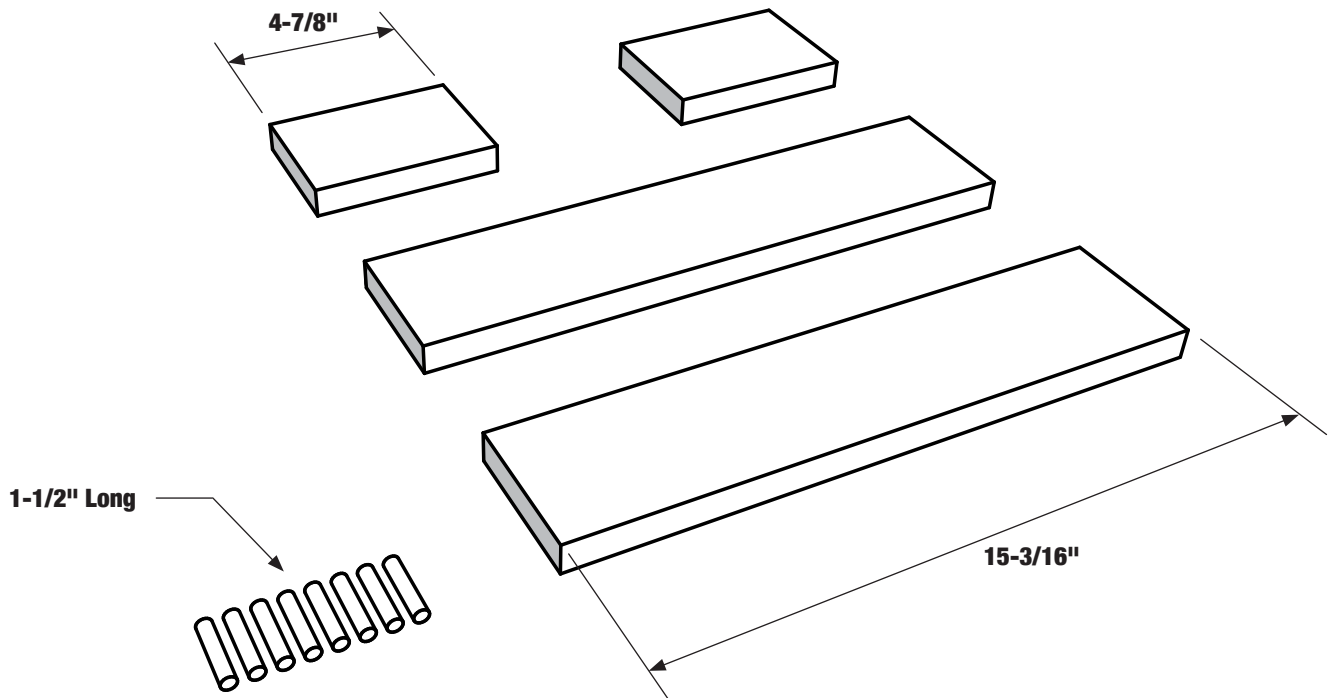
Board*	Cut to	Qty
1" x 4" Top & Bottom	15-3/16"	2
1" x 4" Sides	4-7/8"	2
5/16" Dowel	1-1/2"	8

* 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

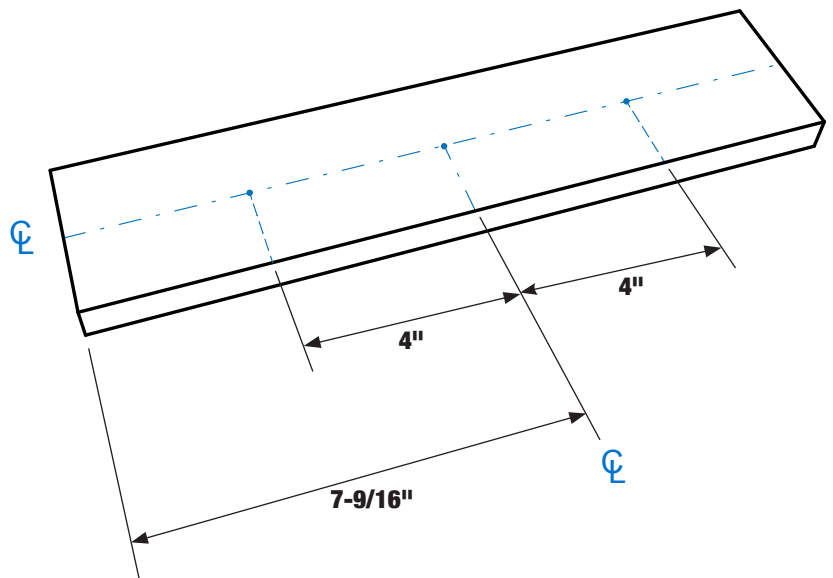
Step 1

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



Step 2

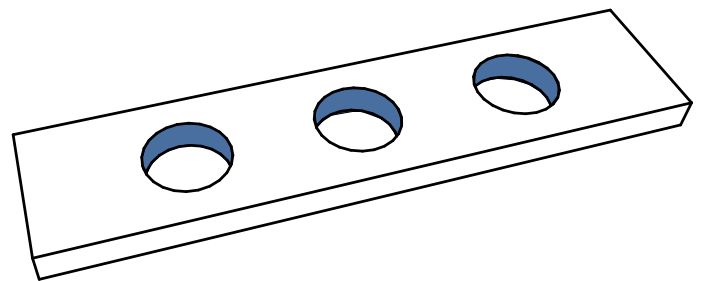
Take one of the 15-3/16" boards and mark the center line (☿) lengthwise. Then find and mark the midpoint of that line. Measure 4" away from the midpoint on both sides and mark a point.



Step 3

Use the 2" Hole Saw and drill through the board at the three points marked in Step 2.

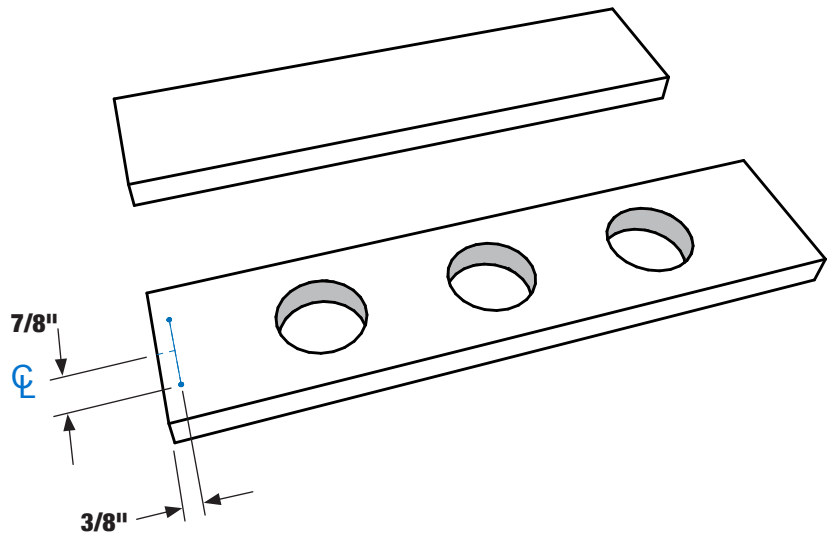
H Tip - Place a scrap board under the Centerpiece board when drilling to prevent tear out on the underside of your Centerpiece board. Drill through the Centerpiece board only.



Step 4

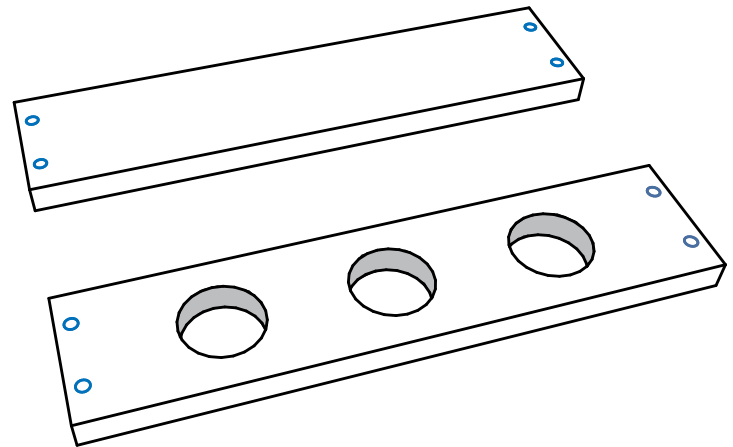
Take the 15-3/16" boards and find the center line. Mark two points that are 3/8" from the edge and 7/8" from both sides of the center line. See diagram to the right.

Repeat this process on all ends of the 15-3/16" boards.



Step 5

Drill a 5/16" hole at each point marked in Step 4 on the top and bottom boards.

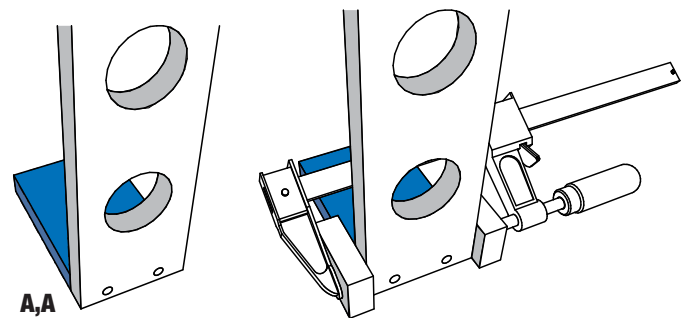


Step 6

First, designate the side boards to match with the end of the top and bottom boards as shown in Step 7 (A-A, B-B, C-C, D-D). The top and bottom boards will become the template for the drill holes in the side boards.

Align boards and clamp to hold in place. Use scrap blocks to prevent damaging the Centerpiece.

Drill a hole through the existing hole and into the side piece. The depth of the hole through both pieces combined should be 1-1/4".

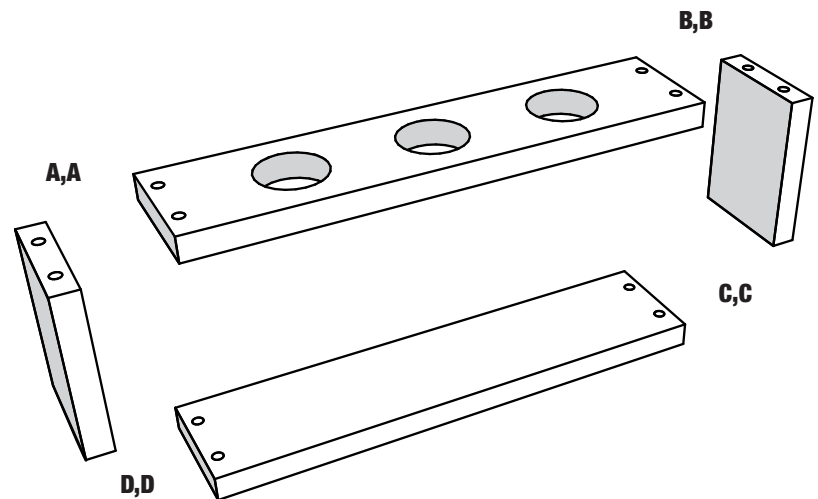


H Tip - Wrap masking tape to set the depth of the hole. When the tape meets the wood, stop drilling.



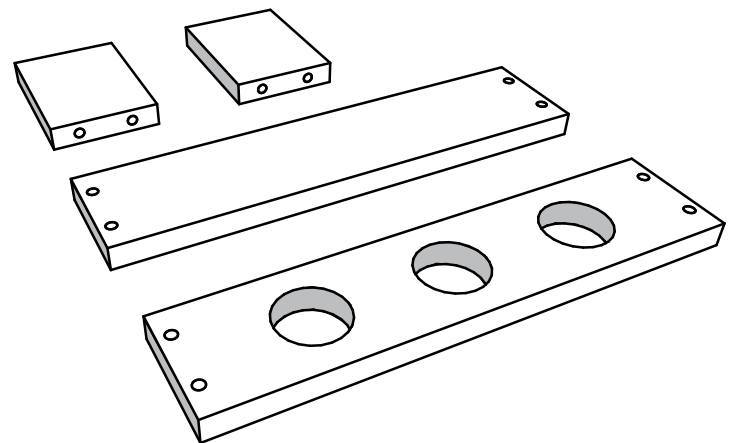
Step 7

Matching side pieces to the correct top and bottom pieces is important for alignment. Since the top and bottom pieces were used as a template for the holes in the side pieces, keeping them together will ensure the pieces fit securely and correctly.



Step 8

Before completing the assembly, lightly sand the pieces to clean up around the holes. Final sanding will be done at the completion of the project.

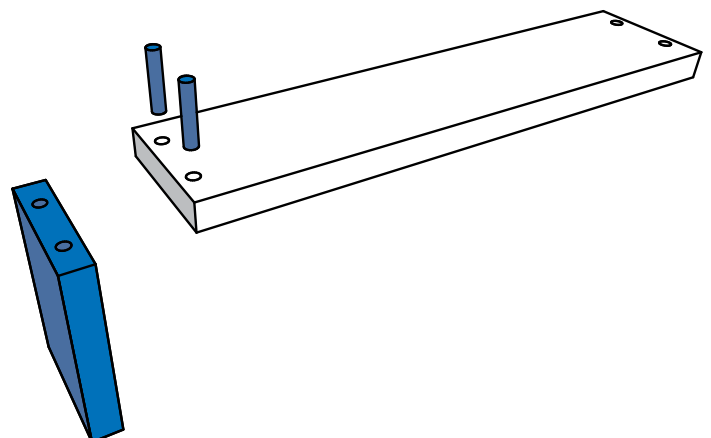


Step 9

Add a small amount of glue to each hole and then end of each side board.

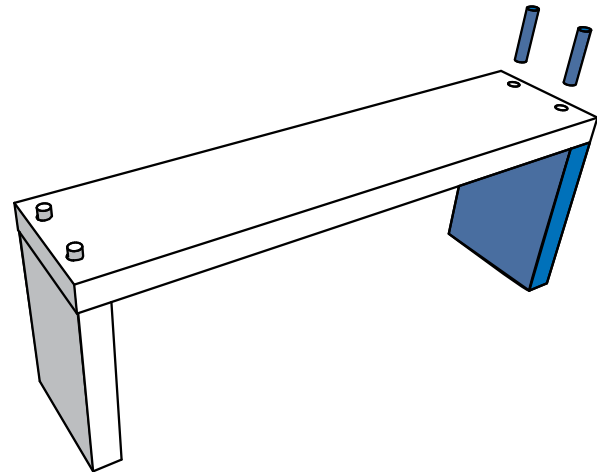
Using a Hammer, drive two 5/16" dowels through one set of holes in the Bottom board and into the side board.

1/4" of the dowel should stick out above the surface.



Step 10

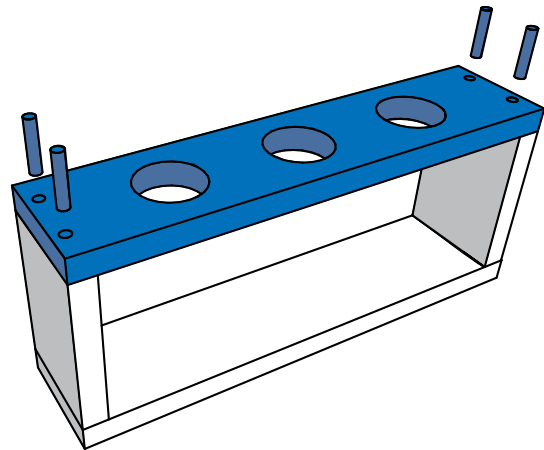
Repeat this same process on the other end.



Step 11

The glass vases must be placed on the top of the bottom board before the top board can be assembled. The top of the vase should stand slightly above the top board so it does not fall out.

Follow methods used in Step 9 & 10 to attach the top board to the assembly.

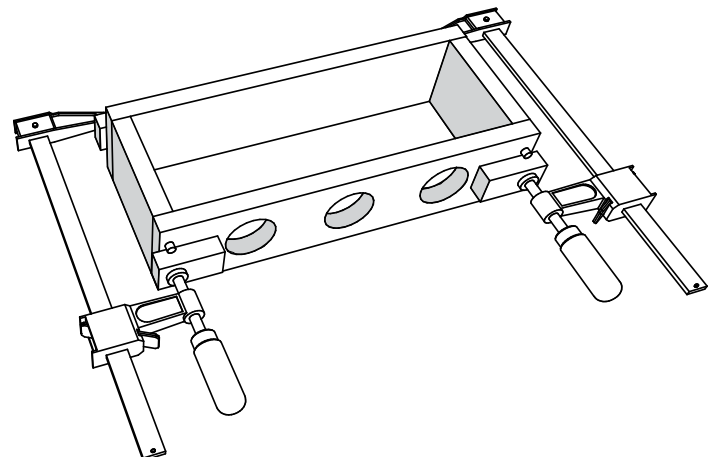


Step 12

Secure 12" Bar Clamps and scrap blocks on each end of the Centerpiece.

Wipe off any excess glue with a slightly damp cloth.

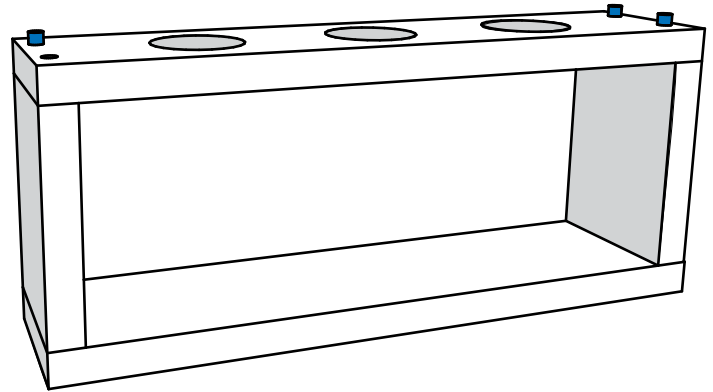
Allow glue to dry 24 hours. Follow the instructions on the glue bottle.



Step 13

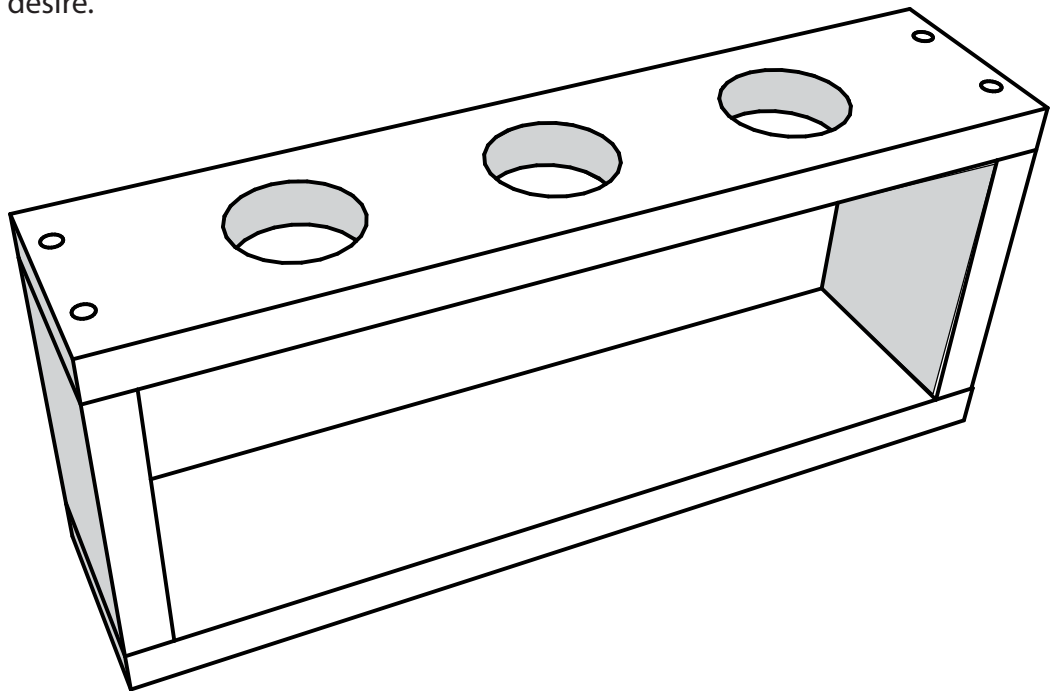
Once the glue has dried, remove clamps.

Use a Multi-Tool and the Wood Blade to cut the extended ends of the dowels so they are even with the top and bottom surfaces.



Step 14

Sand and finish to your desire.



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

