





# How To Make a Wooden Easel for Displaying a Poster or an Art Work

By

Dr. Filip To

Agricultural and Biological Engineering, Mississippi State University

## Materials:

Quantity	Description	Where to Buy
3	1 x 2 wood piece, 6 ft long each (The dimension is actually 0.75" x 1.5" x 72 inch) it is also called 1x2x6 board	Lumber/hardware store (Lowe's, Home Depots, etc.) Lowe's PN 19414-12906
1	¼ inch 20 thread 2.5 inch Carriage Screw 	Hardware store. Lowe's PN 63334
1	¼ inch 20 thread wing nut 	Hardware store. Lowe's PN 135587
2	Hook Screw (¾ inch or 1 inch long). It looks like an L shape with the long leg having threads for screwing into wood, used for hanging things on the wall 	Hardware store. Lowe's PN 491393
1	1/8 inch diameter, 2 ½ inch long Nail, or a Cotter Pin 	Hardware store. Lowe's PN 58371
1 ft	String for tying the 2 ½ inch nail/pin to keep it with the easel	Hardware store

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## Tools

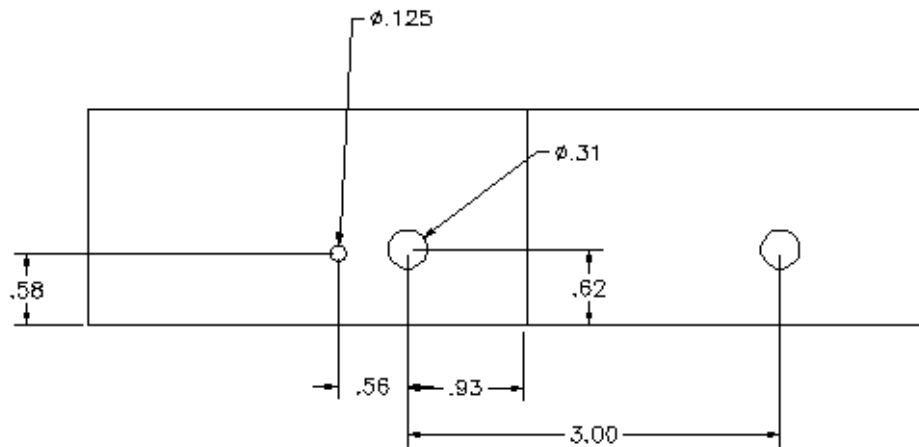
- Hand Drill and 3 bits (5/16 bit, 1/8 bit. And 1/16 bit)
- Skill Saw or a mitering saw, or a hand saw
- Measuring tape or straight edged ruler

## Procedure

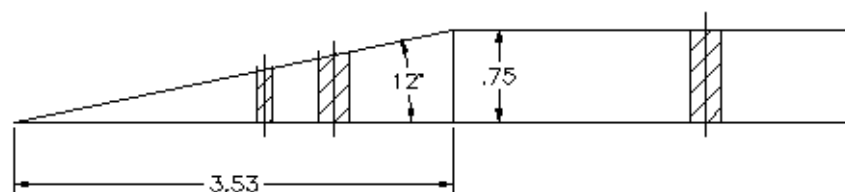
### *Cut the wood:*

- Cut two of the three wood pieces according to the following drawing (cut only one end and cut on the “wide” side at 12 degrees). We call these two pieces the Side Members.

Tip of Side Member  
Side View



Tip of Side Member  
Top View



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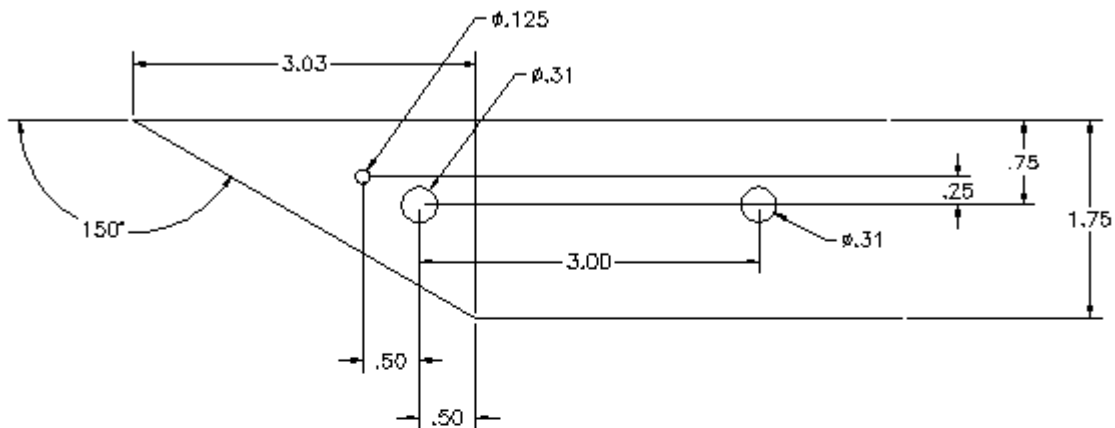
Step 1: Use a ruler mark 3.53 inches across the narrow side at one end of the wood then draw diagonally from the tip of the wood to make a 12 degree angle (see the Top View drawing above)

Step 2: Use a saw to make an angle cut so that the top of this wood has a taper of 12 degrees on its wide side as shown in the picture above

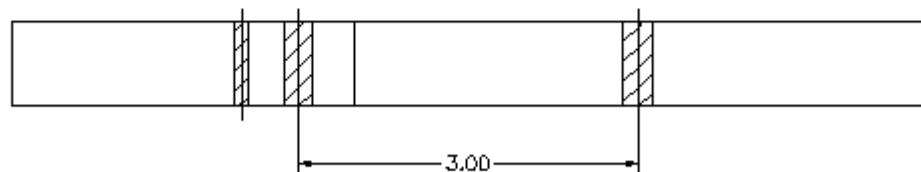
Step 3: Do step1 and step2 again to another piece of the 1x2x6 board (the easel has two side members)

Step 4: Cut the Middle member of the easel as follows:

## Tip of Center Member Side View



## Tip of Center Member Front View



## Tip of Side Member Side View

- The Middle member of the easel is cut with an angle on its narrow side. The angle is 30 degrees.
- Measure 3.3 inch from the tip of the wood and mark a diagonal line on the wide side of the wood (see the picture above)
- Cut along the diagonal line so that the wood has a 30 degree tapering on its end.

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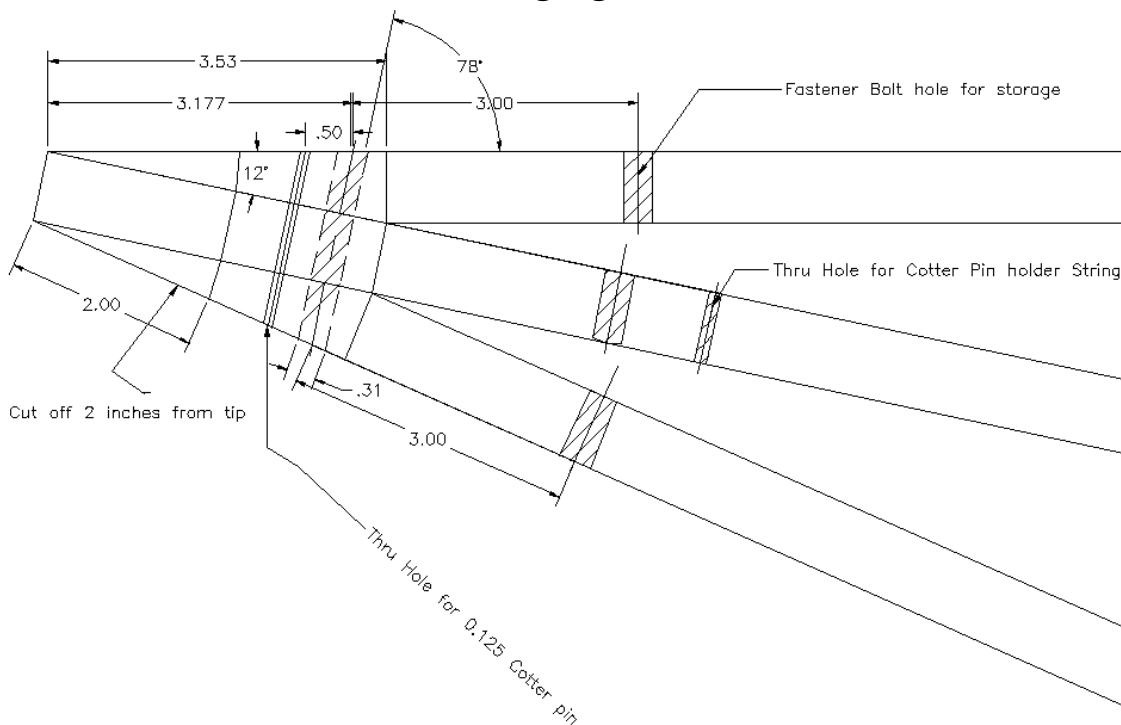
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## Drill Holes

- Hole for the 1/4 inch bolt:  
Put the three members of the easel together so that their tips are together and the two side members spread out to their fully open positions then using the 5/16 inch bit drill one center hole thru the three pieces. Choose a spot near the bottom edge of the triangle as possible (about 2.5 inch from the tip).
- Hole for the 1/8 inch pin  
Put the three members of the easel together so that their tips are together, the two side members spread out to their fully open positions, and the middle member is open to the back with angle of about 30 degrees (the easel is in its free standing position). Using the 1/8 inch bit drill one hole thru the three members about 1/2 inch away toward the tip from the 5/16 inch hole done previously.
- Hole for string  
Drill one 1/8 inch hole on the middle member 3 inches away from the 5/16 inch hole toward the other end of the wood. This is for tying a string onto the middle member to hold the 1/8 inch pin
- Hole for Storing Easel  
Hold the three member of the easel together stacked together like the way you want to store them then put the stack on a work table. Mark a spot about 6 inches from the tip and drill a 5/16 inch hole thru the pieces. This hole is for putting the 1/4 inch bold when you store the easel.
- Holes for hook screws  
Mark a line 40 inches from the bottom end of the side members of the easel and drill a starting on each member on this line. This is where to put the hook screw to hold the poster in place.

**The Easel looks like the following figure when it is assembled for use:**



To store the easel: move the 1/4 bold from the 5/16 inch hole where it is in place when the easel is in use to the 5/16 inch hole below it.