Construction Plans for
The Basic Wooden Easel
Updated August, 2002

Thank you for purchasing these easel plans. I think you will find this to be a fun, easy to build project that will serve you for years to come.

I realize this may be the first woodworking project for some of you. Others of you have created much more complicated pieces. I've tried to keep the materials and techniques simple so that this will be a quick and easy project. But if you want to embellish on these plans, please feel free. I've included some notes for more experienced woodworkers. They are marked with a diamond ◈

Supplies

Everything listed below should be available at your local hardware store. These prices are from our local Home Depot. Your prices will vary.

Quantity	Item	Price ea.	Item Total
4	1" x 3" x 8 ft pine	$1.99	$7.96
2	¼" x 2" carriage bolt *	$0.10	$0.20
1	¼" x 3 ½ " carriage bolt *	$0.22	$0.22
3	¼" wing nuts *	$0.22	$0.66
1	¼" hex nut	$0.10	$0.10
2	2" hinge	$1.66	$3.32
1	16" elastic cord **		
~30	1 ¼ " # 8 wood screws (buy a box)	$3.40	$3.40
	Total		**$15.86**

* Hex bolts can also be used, but make sure they are threaded all the way to the head. Also check that the wing nut threads match your bolt. Buy coarse threaded wing nuts. Thin threads don't work. (Learned the hard way!)

** An old bungie cord or any kind of elastic would work. Got some old underwear lying around you can cut up?

Remember that 1” x 3” boards are actually about ¾” x 2 ½” when you measure them. Keep this in mind when centering and screwing together the material.

The supplies

Tools:

Electric Drill with 1/8 inch and ¼ inch bits.
Phillips Screwdriver
Hand Saw
Sanding block and sand paper
Tape measure

Optional Tools and supplies:
If you need an excuse to go buy some useful tools, here’s your chance. These items will allow you to build your easel (and anything else you can dream up) quicker, better, and more efficiently.

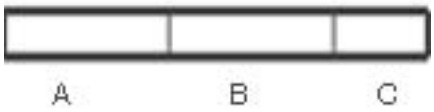
- Cordless Electric Screw Driver. (This really should be a necessity. I couldn’t image life without one.)
- Combination square for small measurements and drawing 45 degree angles
- Wood glue
- Safety glasses. (Required if you use any of the following power tools.)
- Table, belt, circular, or chop saw. (A chop saw would be the best bet for this project.)
- Electric Sander
- Router with a quarter round bit. ⟐

Advanced Tools

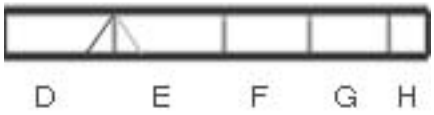
Wood Cuts

Once you have all of your supplies, it's time to measure and cut the boards. Measure each piece and cut as you go. Otherwise you will be off at the end because of the 1/8 inch waste from each cut. (Everyone learns this the hard way too). Mark the pieces lightly in pencil with the appropriate letter as you go.

1st piece of 1 x 3 pine –
Cut these lengths in this order:
2 - 3 foot lengths
1 - 2 foot length



2nd piece of 1 x 3 pine –
2 - 2 foot lengths
2 - 18 inches
Save the last 1 foot length



3rd piece of 1 x 3 pine –
3 – 7 ¾ inch length
Save the 6 ft, 1 inch length

4th piece of 1 x 3 pine –
1 – 18 inch length (optional tool shelf)
1 – 4 inch length
1 – Very thin piece. About ¼ inch wide.
The rest of this wood is scrap.

Now cut the ends of two of the 2 foot sections at a 45 degree angle. You can also dog ear one end of the 6 foot piece.

Now sand the whole batch smooth to prevent splinters.

The Building Process

Believe it or not, you're almost done. Because thin pine likes to split, be sure to pre-drill all screw holes with a 1/8 inch drill bit. No exceptions!

⟐ If you have a counter sink bit, now's your chance to use it. If you don't have a counter sink bit, don't worry about it.

Assemble the base.

1. Attach the 3 foot base *(piece A)* to 6-ft length *(piece L)* using the 1-foot pine section *(piece H)*. Make sure it's straight and centered!! Use a combination square, T square, and/or a ruler.
2. Now screw in the two 2-foot brace bottoms *(pieces D and E)*. Set the lower corner at bottom edge of the base. The tips of these 45 degree pieces will be cut off so you have 1 inch 'feet' sticking out below the base.
3. Now affix the top of the 45 degree braces.

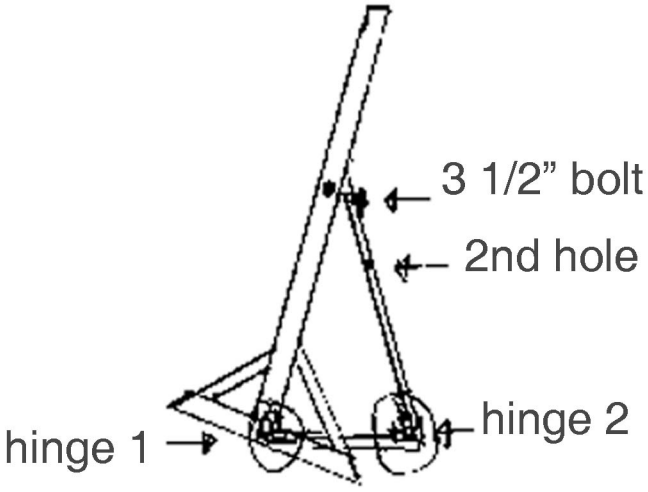
Assembling the base

Cut the corners of the base as shown with a hand saw.

"cutting corners"

The Back Brace

Next we screw in the hinges to build the back brace. First install the hinge between your 6 foot *(piece L)* and 3 foot *(piece B)* lengths of pine. Make sure the pieces are straight when they are folded together!! Now screw your two-sectioned 9 foot piece to the base. The hinge should be about 1 ½ inches above ground level. Again, make sure the whole contraption folds up straight before fully tightening the screws.



Building the Picture Holder

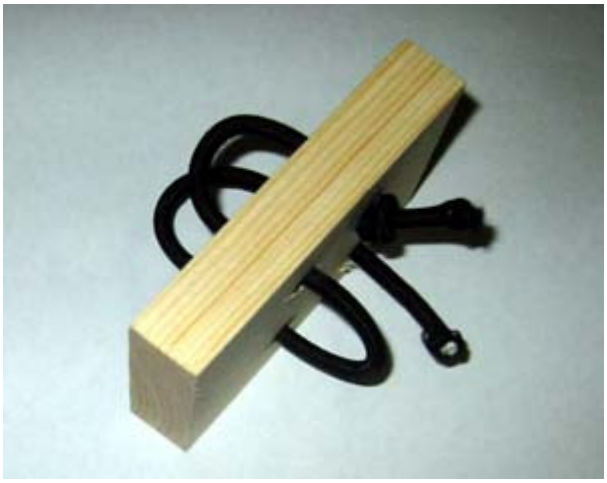
Set two pieces of 18 inch pine on their sides *(pieces F and G)*. Now set two 7 ¾ inch pieces *(I and J)* on top of them with a 4 inch piece *(N)* set vertically between them. We will use this piece for an upright template so the picture holder will fit snugly when complete. Now drill and screw the 7 ¾ inch pieces to ONE OF the 18 inch pieces. (The other 18 inch piece is just to stabilize the unit while you drill.)

Picture Holder Side View

Flip the unit over. Drill and screw the other 18 inch piece *(G)* to the front of the picture holder. This piece serves as the picture holder lip. It is centered so about 1 inch sticks out above and 1 inch below the picture shelf. If you want a tool shelf, drill and attach another 18 incher *(piece M)* to the bottom of the picture lip.

Top Clamp

Now it's time to change drill bits to a ¼ inch or 5/16 inch bit. Drill 4 holes in your 4 inch piece *(N)* about 1 inch from each other. Thread the elastic as shown. This will be used as the top picture clamp.



Putting it all together

Prop up the easel so that the top of the 6 foot section *(piece L)* slants back about 15 to 20 inches from the front. Too far forward or too far back will make the easel unstable when holding a large work or if it is disturbed. Drill a hole through both the main upright and the back section *(B)* at once so your 3 ½ inch bolt will fit through the hole and can be secured on the back.

Once this is done, fold the easel flat as though it were stored. Drill through the previous hole on the front upright into a new location on the back support. Now you can insert the 3 ½ inch carriage bolt through the front and secure it with a hex nut behind the 6 foot upright. Attach the wing nut behind the back support piece.

Next attach the picture holder to the easel. Two holes will be drilled in the back of the picture holder and into the last piece of the 7 ¾ inch pine *(piece K)*. You might need to glue a sliver of wood to the picture holder so there is enough friction to hold it up once you insert the bolts and wing nuts.

Now slide the top clamp over the top of the easel. The single loop faces backwards and down. You can tighten your knots and cut off the excess elastic once you get things fitted.

That's it. You're done !!

◈ If you want to get fancier, you can take off the top clamp and route the base and uprights with a ¼ round bit. Also a fine sanding and the application of a protective coating of paint, stain, or Verathane would be a nice touch.

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Please let us know how your project turned out. Also any suggestions to improve these plans or our web site would be appreciated.

Sincerely,

Bob Spier
www.easelplans.com
easelman@easelplans.com
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