

the Flat Pack easel

You will need



Electric drill



9mm (3/8") drill bit

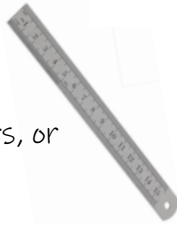


Saw

Sharp knife



Metal ruler
Set-square



Clamps, weights, or heavy books



Awl or nail



Wood glue

Superglue



Square nut which fits onto tripod screw

Sandpaper



Acrylic varnish



3mm (1/8") plywood (MDF)
3 pieces 10" x 8" (20 x 25cm)
1 piece 7" x 6" (17 x 15cm)

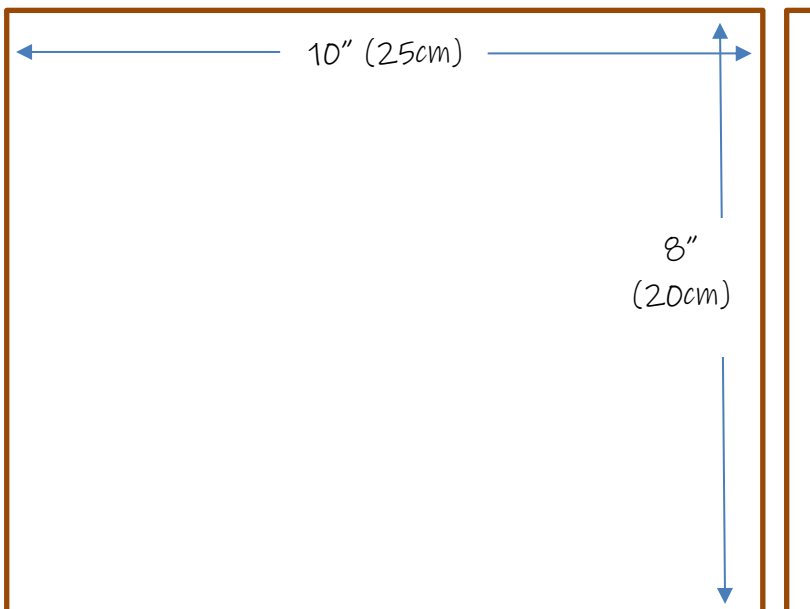


7mm (1/4") round dowel
2 pcs 3 1/4" (8cm) long



15mm (9/16") square dowel
1 piece 10" (25cm) long

5mm (3/16") square dowel
4 pieces 5 1/2" (14cm) long



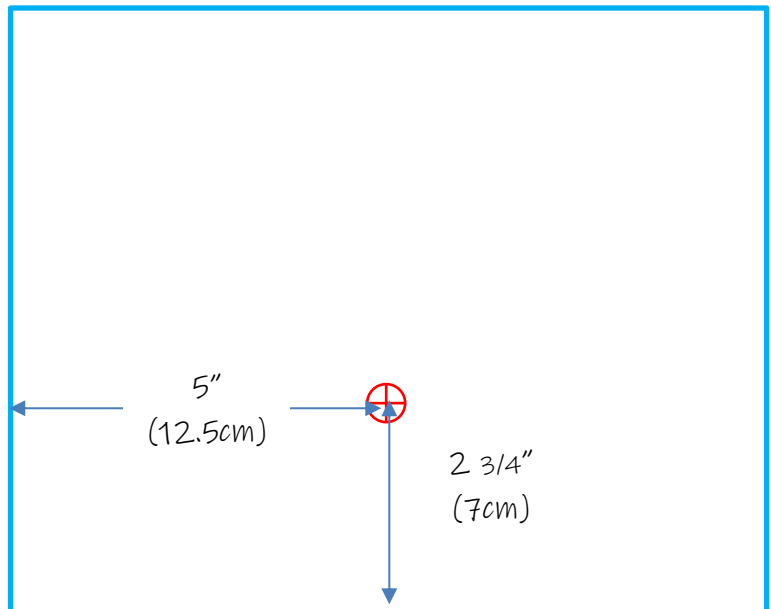
Cut two identical pieces of 1/8" (3mm) plywood or MDF or hardboard.
Cut each piece 10" x 8" (25cm x 20cm).

2

Make the tripod fitting.

Mark the centre for the fitting as shown here on one of the pieces of board. (Board A)

Place the nut over the centre mark, and then draw around it. Cut out the square with a sharp knife.



If the nut is deeper than the thickness of the board, you will need to hollow out a well in the second board (Board B) so that it fits flush when mounted.

Place Board B under Board A and line up the edges. Mark the square with a sharp pencil on Board B. Then hollow out this square to a depth of about 1/32" (1mm).

Alternatively, you can fit a **T-nut**

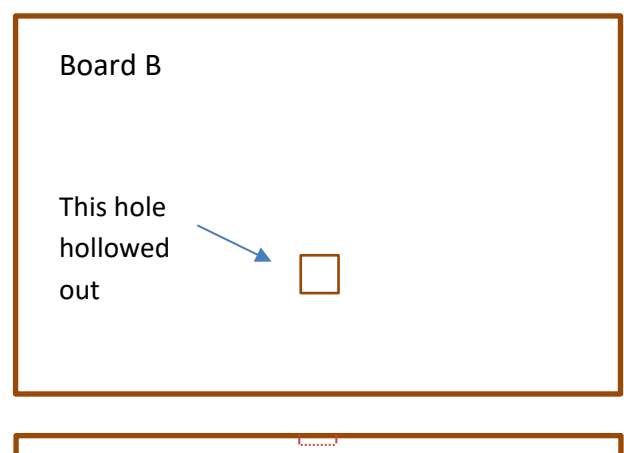
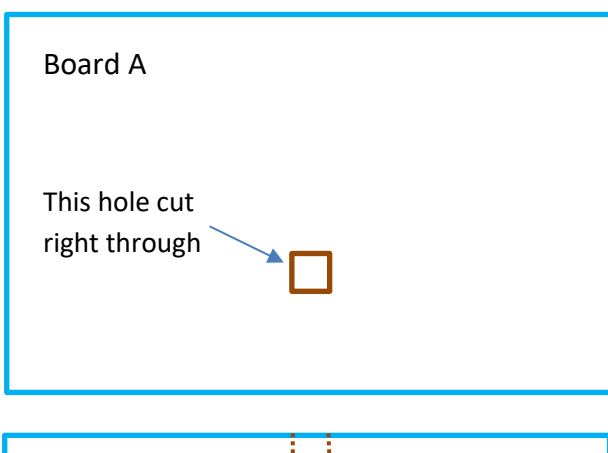


or a **tripod mounting plate**:



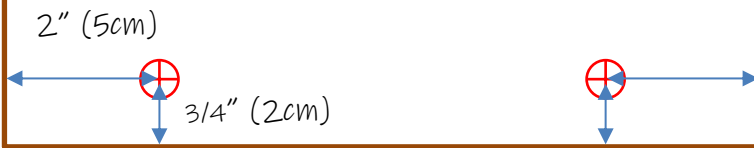
(My recommendation however is to find a nut as demonstrated here because it is a lighter option and does not require drilling right through the boards.)

You should now have two boards cut as shown below.



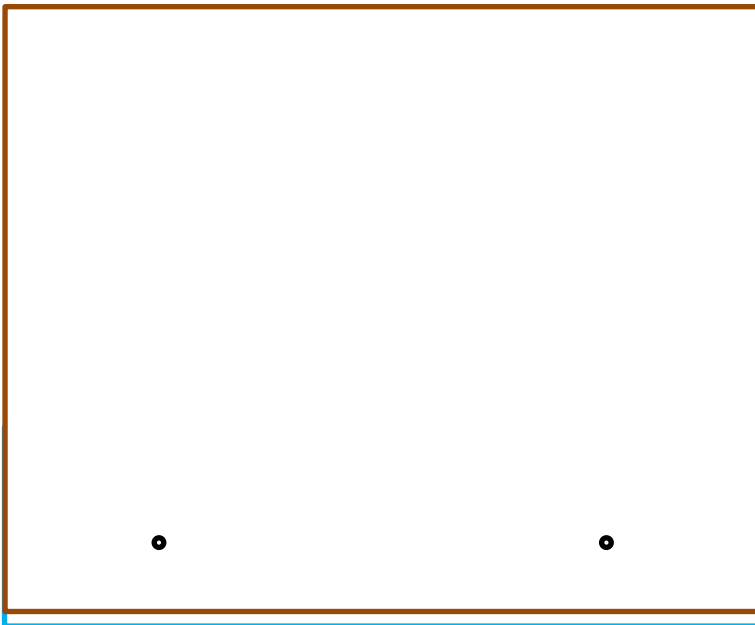
3

Board B



Turn board B over (the hollowed-out square is underneath and towards the bottom) and mark two points as shown here with a pencil. Each is 2" (5cm) from the side and $\frac{3}{4}$ " (2cm) up from the bottom.

Use an awl or a nail to make a small hole for the drill at each of these points.



Place board A underneath board B.

Board A must protrude from the bottom of board B by $\frac{1}{16}$ " (2mm). It helps to draw a line 2mm up from the bottom of board A and then align the two boards to this line.

Clamp or tape the boards in this position so they do not move.

Then use the $\frac{3}{8}$ " (9mm) drill bit to drill two holes.

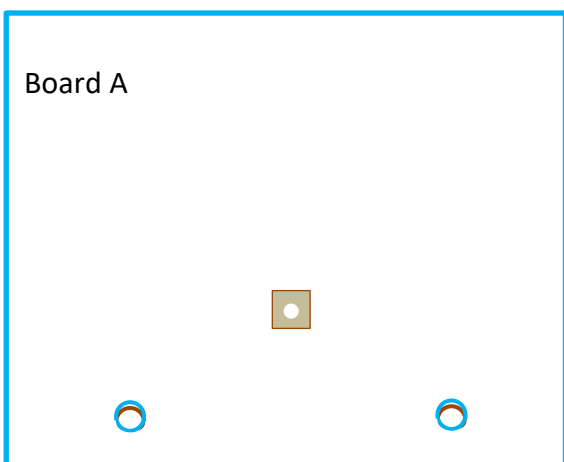
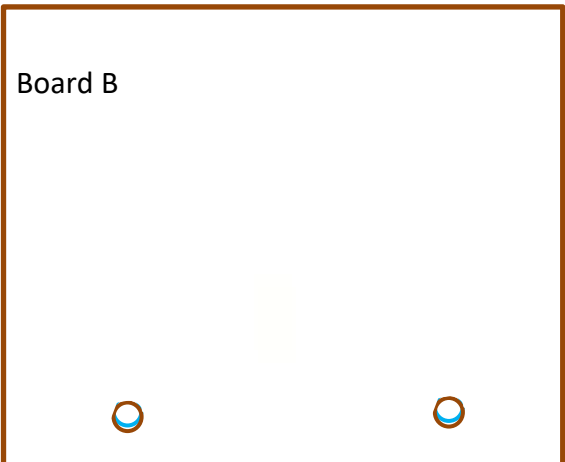
$\frac{1}{16}$ " (2mm)



Place the two boards together with all the edges lined up. The drilled holes should be a little out of alignment vertically.

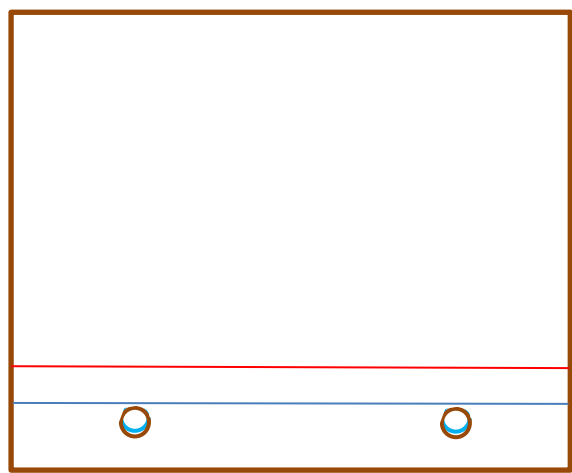
Glue the boards together with wood glue and weigh them down overnight or clamp them.

Use superglue to glue the nut into the square hole, making sure it is flush with the surface.



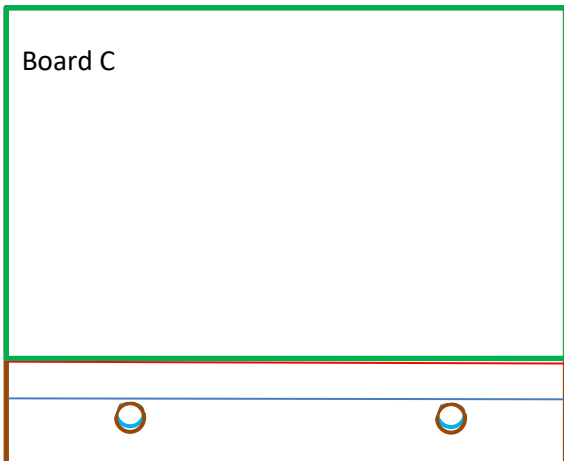
4

Cut a piece of 9/16" (15mm) square dowel to a length of 10" (25cm).



Draw a pencil line (shown here in blue) 1" (25mm) up from the base on Board B. This should be just above the drilled hole.

Then place the square dowel on this line and draw another pencil line above it (shown here in red).

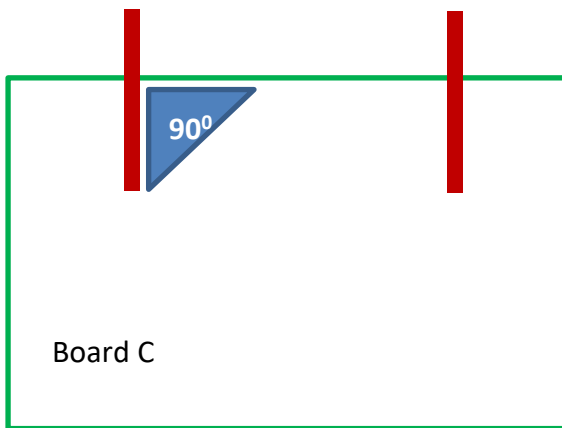
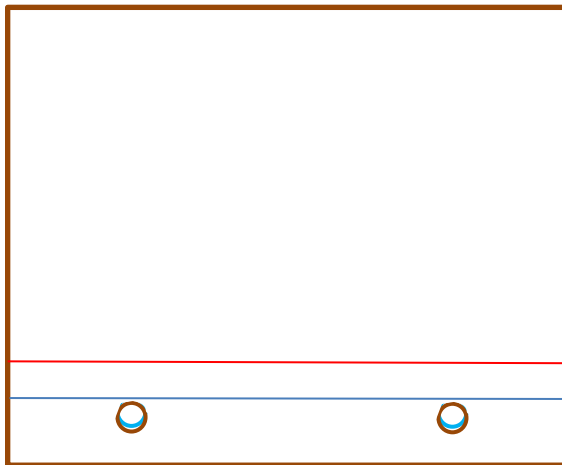
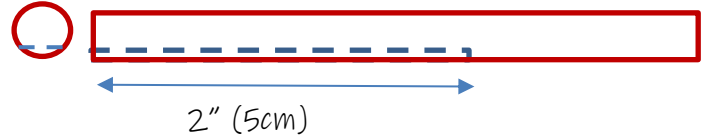
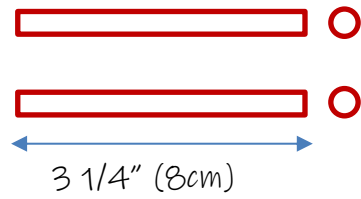


Cut a rectangle from your third piece of plywood (Board C) to the size shown here in green – 10" (25cm) wide by the height from the red pencil line to the top.

5

Cut two pieces of 1/4" or 5/16" diameter round dowel (7mm diameter) to 3 1/4" (8cm) long.

Then cut away a small strip of the dowel along a length of 2" (5cm). This provides a flat surface for gluing to Board C.



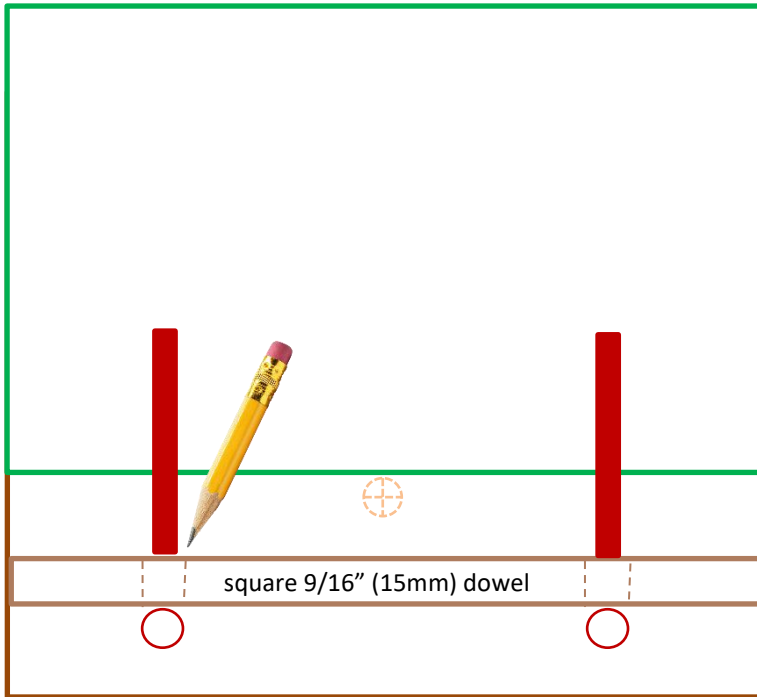
Glue these round dowels onto Board C as shown here. They must be glued so that they pass through the drilled holes in the backboard (Boards A and B).

One way to do this is to place a spare piece of 1/8" (3mm) plywood under Board C to raise it up to the same height as the backboard and position them so that they are touching. Use a set-square to draw lines down from the drilled holes onto Board C.

Glue the round dowels onto this board using the lines as a guide. Use a set-square to make sure they are glued at 90° to the board.

6

Place the square 9/16" (15mm) dowel from step 4 onto the backboard.



Place Board C onto the backboard as shown here and mark the places where the round dowels meet the square dowel.

Remove the square dowel and drill two 3/8" (9mm) holes where you have marked it.

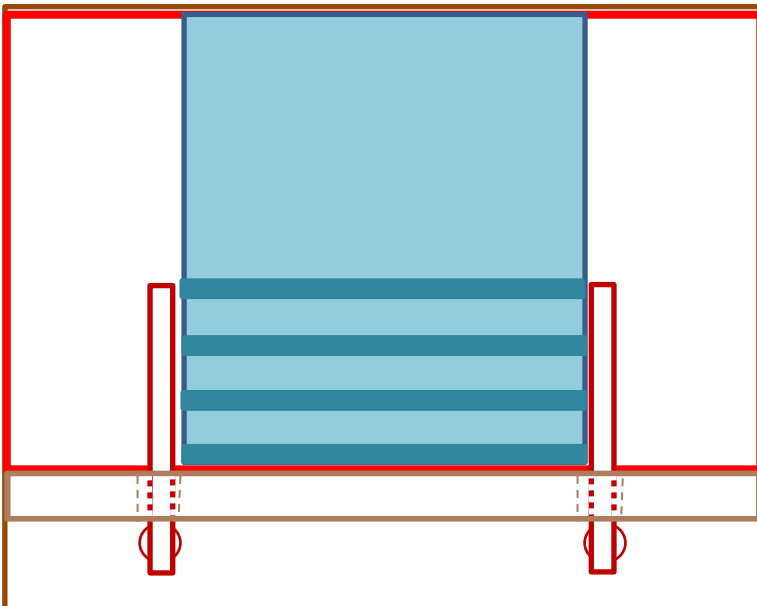
Glue this dowel onto the front of the board, making sure that the round dowel pegs fit into the drilled holes. Clamp it or weigh it down until the glue sets.

You have now completed the easel. I like to round off the corners of the boards so that they don't snag on anything, and it just looks and feels nicer!

Give the easel a couple of coats of varnish – I use clear acrylic varnish as it dries quickly, but you can use whatever varnish you prefer.

7

The tray. Cut a piece of 1/8" (3mm) plywood to fit between the pegs as shown below, and then glue on four pieces of 3/16" (5mm) square dowel to form brush holders.



Round the corners and varnish the tray.

Enjoy your Flat Pack easel!