

Toy box on castors



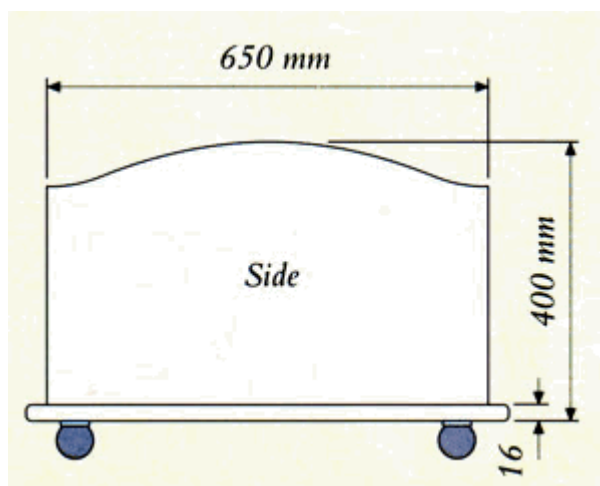
This toy box is set on swivel castors so it's very easy to move around. Make it this weekend.

Its finished size is top 700mm x 500mm; height 416mm.

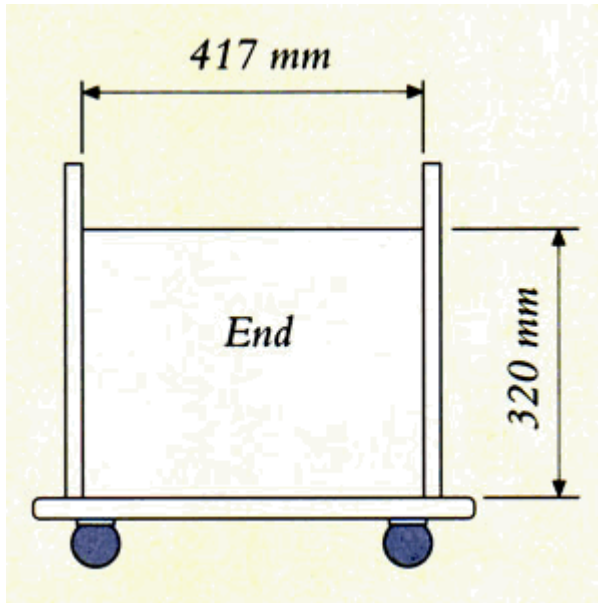
You'll need:

Part	Material	Length	Width
bottom (1)	16mm MDF	700mm	500mm
sides (2)	16mm MDF	650mm	384mm
ends (2)	16mm MDF	417mm	320mm
cleats (4)	25mm scotia mould	319mm	N/A

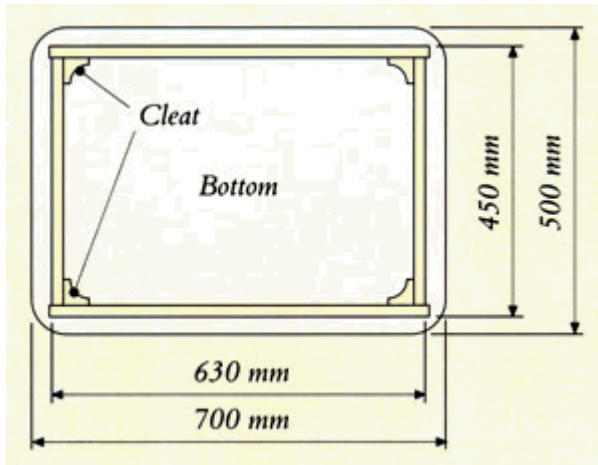
You'll also need: PVA glue; small swivel castors (4); 40mm chipboard screws (8); 15mm x 6 gauge countersunk screws (cross-head or slotted) (16); 40mm panel pins (20); sandpaper; 1 sheet 100 grit, 1 sheet 240 grit; 400mm x 120mm cardboard; acrylic-based paint; MDF sealer undercoat; timber putty.



Front view of box.



End view of box.



Top view of box.

Tools

Smoothing plane
 Portable circular saw
 Tape measure and straight edge
 Combination square and pencil
 Coping saw (or electric jigsaw)
 Hammer
 Spoke shaves: round-bottom and flat-bottom
 Electric drill
 Drill bits: 2mm, 3mm, 5mm, countersink bits
 Utility knife and scissors
 Cork sanding block or electric sander
 Screwdriver (cross-headed or slotted)

Here's how:

Preparing the boards

1. Using a tape measure, combination square and straight edge, mark the parts on the MDF, leaving a 5mm allowance for saw cuts. Check the parts are square.
2. Cut the parts on the waste side of the lines, using a circular saw and a straight edge cramped to the board. Pin the matching pieces together with panel pins and plane the edges straight and square back to the lines.

Shaping the top edge

3. Square a line down the centre of the face side. On the cardboard, draw a 350mm x 64mm rectangle (make sure it is squared) and inside it draw a curved shape to be used as a half template. Cut out the template. Line up the template with the centre line of the sides. Trace the template, flip it over, and trace the shape on the other side.

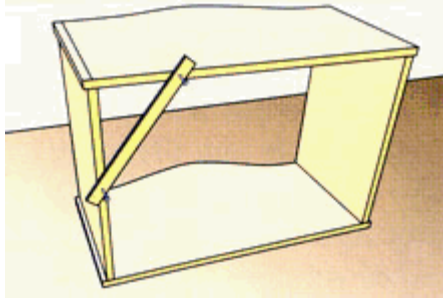


Trace around the template, then flip it over for the other side.

4. Keeping the sides pinned, cut the top edges with a jigsaw. Use spoke shaves or a sanding block and 100 grit sandpaper to smooth the curved top. Draw a line 18mm in from either end and continue the lines over the edges. Take the pinned pieces apart carefully.

Assembling the box

5. Start three nails evenly spaced on the 18mm line. Put glue on the edge of an end panel. Apply a little more glue and line up the joint, making sure the guide line matches the centre of the edge of the end. Drive in the nails. Attach the other end. Turn the box around and attach the second side in the same manner. Keep bottom edges flush.
6. Nail a piece of timber diagonally across the bottom of the box to keep it square while the adhesive sets.



A piece of timber helps keep the box square.

7. Use a round object to draw the round corners on the bottom panel. Cut the corners with a coping saw or jigsaw, and smooth them over with a flat-bottom spoke shave or a sanding block and sandpaper.

8. Draw lines 33mm in from the sides of the bottom for the screws. Mark a screw hole 350mm in from the end and measure out 250mm either side of it for two more screws. Draw lines 43mm in from the ends and mark a screw hole in the centre. Drill 5mm holes and countersink.

9. Remove the brace and place the frame with the bottom edge facing up. Prop it into position. Align the bottom panel and make 3mm pilot holes in the bottom edge of the frame. Attach the bottom panel to the frame with 40mm chipboard screws. Turn the box right way up.

10. Cut the four cleats, sand the exposed ends and glue the cleats in place. Use masking tape to hold them while the adhesive dries.

11. Place the box face down on a work surface and draw a guide line 50mm in from the edges of the bottom. Hold a castor in place, drill a 2mm pilot hole and attach the castor with 15mm x 6 gauge screws. Repeat for each castor.



Position castors following the guide lines.

Finishing

12. Apply one coat of an MDF undercoat and at least two coats of paint. Sand lightly between coats with 240 grit sandpaper.