Wooden Serving Tray | Printable Plan V1.0

Beginner | Straight cuts | Light-duty indoor serving and display | Design dimensions, not a physically tested product

Finished dimensions

16 inches long x 10 inches wide x 2 1/4 inches high. The 3/4-inch plywood bottom supports a 1 1/2-inch-high rim. The bottom extends across the entire footprint; all four rim pieces sit ON TOP of it.

Cut list

Part	Qty	Finished size (inches)
Plywood bottom	1	16 L x 10 W x 3/4 thick
Long sides (1x2)	2	16 L x 1 1/2 H x 3/4 thick
Short ends (1x2)	2	8 1/2 L x 1 1/2 H x 3/4 thick

Geometry and fastening

Coordinate convention: x runs along the 16-inch length, y across the 10-inch width, and z upward from the underside of the plywood. Plywood occupies z = 0 to 3/4. Long sides occupy y = 0 to 3/4 and y = 9 1/4 to 10, with z = 3/4 to 2 1/4. Short ends occupy x = 0 to 3/4 and x = 15 1/4 to 16, y = 3/4 to 9 1/4, z = 3/4 to 2 1/4.

Use **10 total 18-gauge x 2-inch brad nails** plus wood glue: 3 through each long side and 2 through each short end. Drive vertically downward through the 1 1/2-inch-tall rim, with approximately 1/2 inch entering the 3/4-inch plywood bottom. Use only a nailer rated for 2-inch brads. Nail centers are at the 3/8-inch midline of each 3/4-inch-thick rim piece.

Fastening locations: long-side nails at x = 2, 8, 14 inches (both long sides); end nails at y = 3 and 7 inches (both ends). All nails are driven vertically from the TOP edge of the 1 1/2-inch-high rim. This is an assembly aid; the glue bond supplies much of the joint integrity. Never nail into a hand-held piece.

Materials and tools

3/4-inch plywood offcut at least 16 x 10 inches; nominal 1x2 pine totaling at least 49 linear inches plus kerf; wood glue; ten 18-gauge x 2-inch brads (purchase extra); optional wood filler and finish. Saw, measuring tape, square, clamps, sanding block, safety glasses, hearing protection and a compatible brad nailer.

Seven assembly steps

1. Check lumber and mark cuts. Confirm actual 1x2 stock is 3/4 x 1 1/2 inches. Mark the plywood bottom and four rails. Cut square and dry-fit; correct the plan if your stock differs.

2. Prepare the parts. Sand cut edges and faces, removing splinters. Keep mating glue surfaces clean. Dry-fit the two 16-inch long sides along the long edges of the plywood and the two 8 1/2-inch ends between them.

3. Glue the rim. Apply a thin continuous bead of wood glue to the bottom edge of each side and to the four butt-joint contacts. Position the rim ON TOP of the plywood, flush with the outer edges. Clamp square. Wipe excess glue.

4. Fasten long sides. With the assembly clamped, drive three 18-gauge, 2-inch brad nails vertically DOWN through each long side into the plywood, at x = 2, 8, and 14 inches measured from the left end; nail centers are 3/8 inch in from the long outside edge. Use a nailer rated for these fasteners and follow its safety instructions.

5. Fasten short ends. Drive two identical 2-inch brads vertically DOWN through each short end into the plywood, at y = 3 and 7 inches measured from the front outside edge, centered 3/8 inch across the thickness of the end. Keep fingers away from the nail path.

6. Check and cure. Check the tray is square and all nail heads are flush or slightly recessed. Let the glue cure for the period stated by its manufacturer before use. Do not lift the tray by its rim while the glue is curing.

7. Finish and use. Fill nail holes if desired, sand, remove dust, and apply a finish suitable for the intended use according to the finish manufacturer. Use as a light-duty serving/display tray; do not claim a tested load capacity. Avoid direct food contact unless the cured finish is explicitly suitable for that use.

Safety and limitations

Use suitable PPE and follow tool manuals. Clamp pieces before nailing. Check nail direction and keep hands away from possible blowout. A 2-inch brad passes through 1 1/2 inches of rim and enters the plywood about 1/2 inch; it should not exit the 3/4-inch bottom if driven squarely and at the specified depth. Wood dimensions and tool settings can vary: confirm with a scrap test. The tray is an educational light-duty design; no load capacity or food-contact certification is claimed.

SEO and editorial reference

Primary keyword: how to make a wooden tray. Proposed URL: /projects/wooden-serving-tray. Keep sitewide noindex, follow until launch authorization.