

OUTDOOR SERVING CART

How-To

This DIY serving cart is not only functional, but it's stylish, too.



SKILL LEVEL: Advanced
TIME: One weekend
COST: \$150-\$170

TOOLS & MATERIALS

- 4 2-inch x 4-inch x 10-foot studs, with the following cuts:
 - 4 36-inch for the front and back frame
 - 4 15-inch for the side frame
 - 6 32-inch for the legs
 - 12 feet of 1-inch x 2-inch poplar board, with the following cuts:
 - 6 12-inch for shelf supports
 - 2 5-inch for shelf supports
 - 2 17 1/2-inch for shelf supports
 - 12 3/8-inch x 4-inch carriage bolts
 - 2 3/8-inch flat washers
 - 12 3/8-inch nuts
 - 1 box 3-inch wood screws
 - 1 box 1 1/2-inch wood screws
 - 2 2 1/2-inch rigid casters
 - 1 2 1/2-inch swivel caster
 - 1 2 1/2-inch swivel caster with brake
 - 2 Levelor 1-inch Replacement Universal Brackets
- 1 4-foot x 8-foot cabinet grade plywood, with the following cuts:
 - 1 36-inch x 18-inch for the cart top
 - 1 21 inch x 15-inch for the lower shelf
 - 3 12-inch x 15-inch for the small shelves
 - 29 feet of 2-inch lattice, with the following cuts:
 - 4 36 1/2-inch for trim
 - 4 18-inch for trim
 - 4 15-inch for trim
 - 4 12 1/2-inch for trim

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TOOLS & MATERIALS (Continued)

- 18 inches 1-inch diameter wooden dowel
- Square
- Measuring tape
- Table or circular saw
- Drill
- 3/8-inch spade bit
- Router with straight bit
- Hammer
- Jigsaw
- Wood glue
- Hole saw
- Pencil or marker
- Work gloves
- Safety glasses

STEP 1

Build the frame.

Take two of the 36-inch front/back frame pieces and two of the 15-inch side frame pieces, and measure down along the face of each $\frac{3}{4}$ of an inch, and draw a line. This line should connect along the top from one piece to another on the inside of the frame.

Screw the pieces together using the 3-inch screws. Make sure that the 15-inch sides are secured between the 36-inch front/back pieces, giving you a total depth of 18 inches and a length of 36 inches. This frame section will make up the bottom frame of the cart.



STEP 2

With the 32-inch frame legs, measure down from the top and up from the bottom $3\frac{1}{2}$ inches, and draw a line straight across. You should now have a $3\frac{1}{2} \times 3\frac{1}{2}$ -inch square at the top and bottom of each leg.



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STEP 3

In the top section of a frame leg, measure along the line you created at 1 $\frac{3}{4}$ inches. Mark it, and use a square to draw a line to the top of the board. Measure up this line 1 $\frac{1}{2}$ inches, and mark the spot.



STEP 4

At the bottom of the legs, measure across the drawn line at 1 $\frac{3}{4}$ inches. Mark it, and use a square to draw a line to the board bottom. Measure down this line 2 inches and mark with a pencil or marker. These marks will be where you will eventually drill for the carriage bolts that will hold the top and bottom frame to the frame legs.



STEP 5

Use four of the legs to help make the shelf section. Taking one leg, measure up from the bottom of the leg 12 $\frac{1}{2}$ inches and mark it. Using the square, draw a line straight across. Measure up another 10 inches, and mark it with a line. Repeat for the other three legs.



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STEP 6

Use a 3/8-inch spade bit to drill all the marked carriage bolt holes in the frame legs.



STEP 7

Take the top and bottom frames, and working one side at a time, align each leg into its proper corner.

Note: Make sure the legs marked for the shelf section are facing each other on the same side. Only two are used at this point. Secure them with a clamp. The legs should be flush with the upper edge of the top frame and the lower edge of the bottom frame.



STEP 8

When you are happy with the alignment, working one corner at a time, remove the clamp and use the existing hole in the leg as a guide to drill the hole through the frame. Place a 3/8-inch bolt through the frame, adding a washer and nut.



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STEP 9

With the cart in front of you, measure from the outer edge of the shelf section 12 inches along the top and bottom frame and mark. Using the marks you just made, align the outer edge of one of the remaining two shelf-section legs and clamp and drill as you did when securing the other legs in Step 7. Repeat for opposite side.



STEP 10

Starting with the bottom frame and using the $\frac{3}{4}$ -inch border you made in Step 1 as a guide, mount the shelf supports using 1 $\frac{1}{2}$ -inch wood screws. The 12-inch supports mount along the cart sides, the 5-inch supports mount between the shelf section legs, and mount the 17 $\frac{1}{2}$ -inch support along the remaining length.

Note: Pre-drill holes on these pieces so the wood doesn't split.



STEP 11

The last four 12-inch shelf supports mount at the guide marks we made for the shelf support section in Step 5.



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STEP 12

Build the top and shelves.

To help make the serving cart more functional, we embedded a cutting board and created a few herb jar holders. The area you will need to route out will depend entirely on the size of the cutting board you select. We used a 13 x 9 ½ x ¾-inch cutting board.

Start by creating a border for the cutting board of the 36-inch x 18-inch plywood top. Measure and mark a 2-inch border along the short and long side. Place the cutting board against this border, and trace the shape of the cutting board onto the plywood.

With the outline in place, select a straight bit, set the router depth to ½ inch, and clear out the area inside of the outline. Get as close as you can to the outline without going over. Use a “guide” for the router, like a scrap piece of 2 x 4, for the straight edge.



STEP 13

Starting on the same side as the cutting board, measure across 28 ½ inches and use the square to draw a line across the cart's top. Place marks along the line at 4 ½ inches, 9 inches, and 13 ½ inches. These marks indicate the center of the holes for the herb jars. Drill the holes through the plywood using a 3 ¼-inch hole saw.

Place the top aside for now.



STEP 14

The bottom shelves require some edits before putting them in place. The shelves will need to be notched to fit around the legs of the cart.

Starting with 21 x 15-inch shelf, measure and mark in 3 ½ inches, and use a square to place a line parallel with the 15-inch side of the shelf. Measure in from each edge 1 ½ inches, and use the square to lay a line from the board edge to the line we drew just before. Use a jigsaw to cut out the resulting corners.



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The corners of the 12 x 15 shelves need to be similarly notched. Working from the 12-inch sides, measure in from each corner 3 ½ inches, and into the board by 1 ½ inches. Remove the resulting corner with the jigsaw.

Repeat for the other two 12 x 15 shelves.

Note: The general shape of the shelf matches the inside contours of the lower frame. If you are not sure of something, always check against this.



STEP 16

Finish the cart.

While the cabinet grade plywood has an excellent-looking surface, the edges are rough and need to be covered.

Place the shelves working from the bottom up.

Attach the cart's top to the frame using the 1 ½-inch screws, one at each corner and one along the length of the plywood on each side.



STEP 17

To hide the edge of the cart top, use the 2-inch lattice. The lattice will be flush with the top of the plywood, hiding the plywood edge as well as the seam where it meets the frame. The longer 36 ½-inch trim will need to overlap the cart corners by ¼ inch on each side, with the shorter 15-inch trim sandwiched in between.

Repeat this process for the bottom of the cart, as well as the two shelves held within the legs.

Secure all trim to the cart using wood glue and/or finishing nails.



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STEP 18

Attach the casters at the corners. The two rigid casters need to be placed on the end opposite the leg shelves. This placement will give you more control when pushing the cart and help prevent tipping.

With the cart now on its wheels, you can place decorative hooks to hold any utensils you want to have on hand. Place the hooks along the frame just below the trim to keep them within easy reach.



STEP 19

The last thing we need to add is a handle to push the serving cart.

To construct the handle for this serving cart, we decided to repurpose some curtain brackets and a wooden dowel. The brackets are mounted 1 inch in from the cart edge on the side opposite the rigid wheels. The dowel is 18 inches long, so it fits flush with the width of the cart. Lock the dowel into place using the Replacement Universal Brackets.



STEP 20

Since this serving cart will primarily be used outside, you have several options for staining or painting. Or you can choose to keep a more natural look.

Congratulations on building your Outdoor Serving Cart!

