









# Plant Cart

Project Level: **Intermediate**

Come fall, bringing your plants indoors can be as easy as pushing this cart to a sunny spot inside. It fits through a standard door frame and is large enough for ferns and hanging baskets. Lowe's is happy to provide this information as a service to you.

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## Tools

- Tape measure 
- Pencil
- Hand , circular , or miter saw 
- Jig saw 
- Framing square 
- Power drill  with bits
- Dust mask
- Goggles
- Hearing Protection

## Materials

- 8 (8') 1x6 cedar boards
- 1 (10') 1x6 cedar board
- 4 (8') 1x4 cedar boards
- 1 (8') 1x4 board rated for outdoor use
- 1-lb. box 1-1/4" deck screws
- 1-lb. box 2" deck screws
- 1-lb. box 1 5/8" deck screws
- 16 (#10 x 1-1/2") exterior wood screws
- Wood glue
- 2 (2 1/2") industrial swivel casters with brakes
- 2 (2 1/2") industrial rigid casters
- 120-grit sandpaper



**Good idea:** Cut pieces as you go (since many must be cut to fit). Pre-drill holes for and countersink all screws. Sand edges as you go and when complete.

### Step 1: Assemble sides.

**a.** Cut all verticals to length. Lay out boards to form one side (see Figure 1B). Press boards together, and use a framing square to even bottom ends.

**b.** Measure across the bottom end from Step 1a, and cut two of the bottom sides to fit. Attach one bottom side flush with the bottom edge using glue and 1 1/4" screws driven in a zigzag pattern; use about 2 screws per vertical board. Turn the side over, and secure the second bottom side with glue and 1 5/8" screws.

**c.** Measure across the short verticals to find the length of the cleat. Affix the cleat to the inside face with glue and 1 1/4" screws at 11 1/4" up from the bottom edge. Repeat for long verticals, attaching the cleat 28" up from the bottom edge (see Figure 1B).

**d.** Assemble other side as in Steps 1b and 1c, noting it is a mirror image of the first.

**Step 2:** Attach back braces, front braces, and back shelf brace.

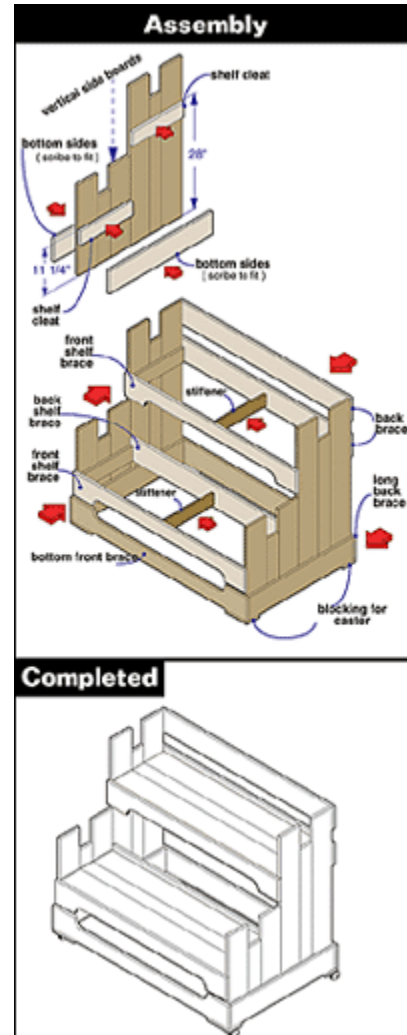
**a.** Cut long back brace to 49 1/2". Secure one end to the back bottom of one side, flush with the outside edge of the bottom side board. Use a framing square to make sure that the side is square with the brace. Repeat for the other side.

**b.** Cut bottom front brace to 49 1/2". Mark 6 1/4" in from each end. Using either a compass or a 4" diameter can, scribe an arc with a 2" radius (per Cutting Diagram). Connect the two arcs with a straight line, and make the cutout using a jig saw. With glue and 2" screws, attach the bottom front brace to the front bottom of each side panel, per Figure 1A. Keep checking for square as you go.

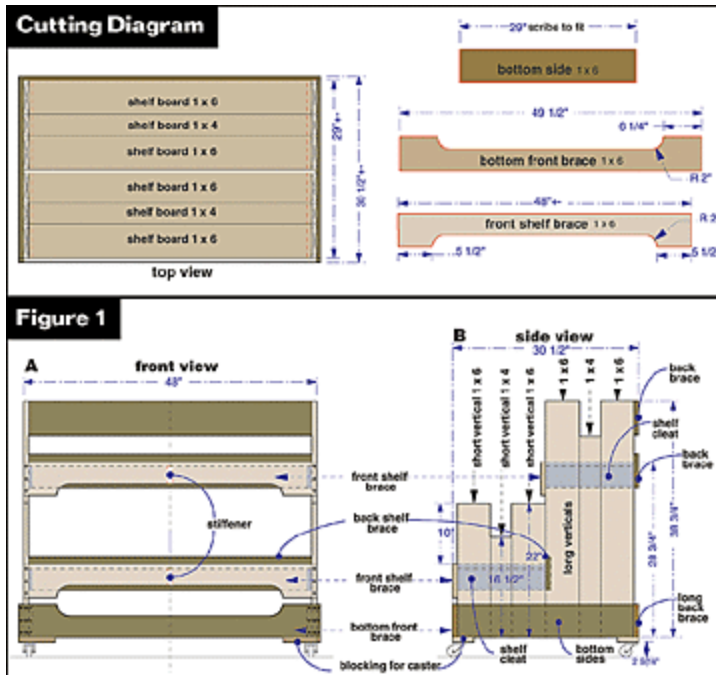
**c.** The length of the front shelf braces is 49 1/2", minus the thickness of two bottom sides. After cutting them to length, use the same technique described in Step 2b to cut the shapes, but start the arcs 5 1/2" in from each end. Affix the braces to the front edge of each side panel with glue and 2" screws. The braces should be 3/4" above the top edge of the cleats, as shown in Figure 1B Check for square as you go.

**d.** Cut the back braces to the same length as the front braces. Position the lower back brace so the bottom edge is flush with the bottom edge of the cleats. Attach both with glue and 1 5/8" screws.

**e.** Measure between the side panels at the short vertical cleats to find the length of the back shelf brace. Position it so the lower edge is flush with the lower edge of the



cleat, as shown. Secure it with glue and 1 5/8" screws driven through the brace into the ends of the cleats.



**Step 3:** Attach shelf boards.

- a. Measure the inside dimension between the side panels at the top of the cleats, and cut the shelf boards to this length. Secure them with glue and 1 5/8" screws driven into the cleats (two screws per shelf end).
- b. Drive 1 5/8" screws through each front shelf brace into the front edges of the front shelf boards. Place one in the center and one about 12" from each end.

**Step 4:** Attach stiffeners.

- a. Measure from inside of the lower front shelf brace to inside of the back shelf brace for the length of the lower stiffener. Measure from the inside of the upper front shelf brace to the lower back brace for the length of the upper stiffener. Dry fit both pieces. If the front ends show below the front braces, make a 30-degree cut to nip off the exposed end before attaching.
- b. Center the lower stiffener on the front and back shelf braces, flush to the bottom of the shelf boards. Affix with glue and 1 5/8" screws through the front of both braces. Repeat the process for the upper stiffener.
- c. Attach shelf boards to stiffeners with 1 5/8" screws (two per board).

**Step 5:** Attach caster filler blocks, caster blocks, and casters.

**a.** Cut four 6" long 1x6 caster filler blocks. Fasten with glue and 1 5/8" screws to the inside of each corner, flush with bottom edges.

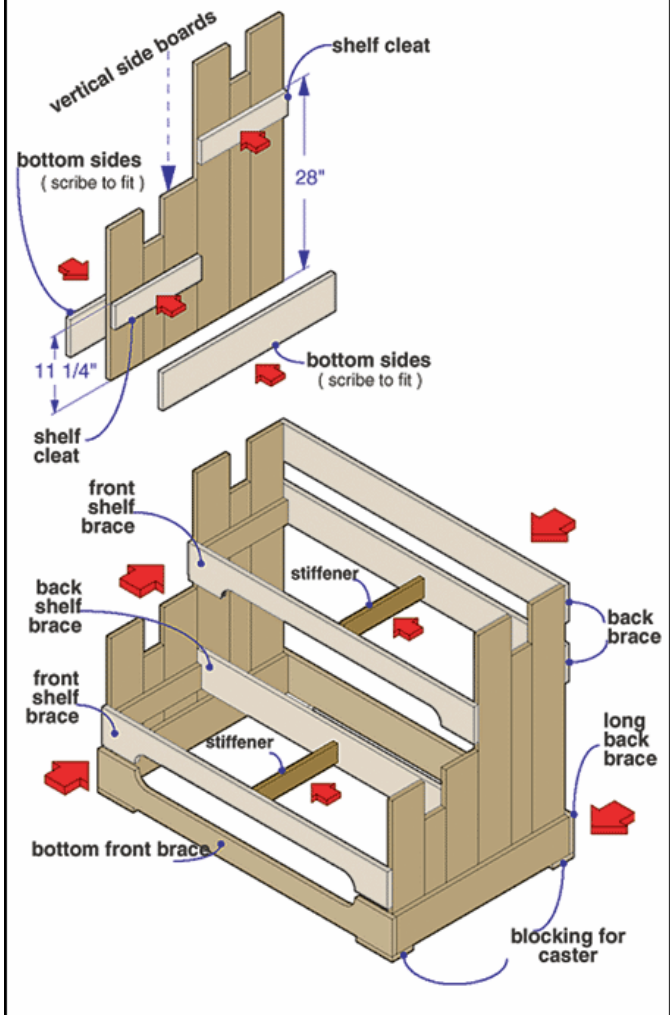
**b.** Cut four caster blocks from lumber rated for outdoor use. Use glue and 2" screws to affix them to the bottoms of each corner, flush with front and side edges.

**c.** Attach two rigid casters to one side panel. Place each 1/8" from the side edge and 1" from the front and back edges, with the wheel aligned to roll side to side. Mark four holes, and predrill for four wood screws. Attach the casters.

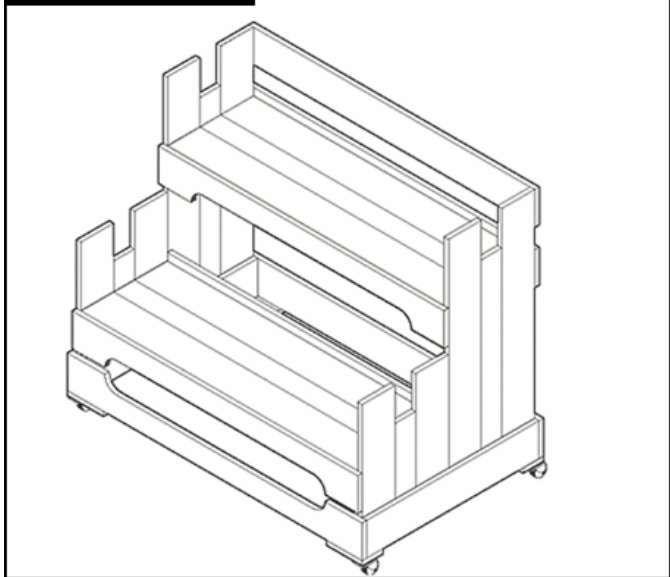
**d.** Use the same positioning and fasteners to attach the swivel casters.

| <b>Cut list</b>         |                                   |                            |                 |
|-------------------------|-----------------------------------|----------------------------|-----------------|
| <b>Part</b>             | <b>Material</b>                   | <b>Size</b>                | <b>Quantity</b> |
| long vertical<br>1 x 6  | (8') 1 x 6                        | 38 3/4"                    | 4               |
| short vertical<br>1 x 6 | (8') 1 x 6                        | 22"                        | 4               |
| long vertical<br>1 x 4  | 1 x 4 cedar board                 | 32"                        | 2               |
| short vertical<br>1 x 4 | 1 x 4 cedar board                 | 16 1/2"                    | 2               |
| bottom sides            | (10') 1 x 6                       | about 29" (cut to fit)     | 4               |
| shelf cleat             | 1 x 4 cedar board                 | about 14 1/2" (cut to fit) | 4               |
| long back brace         | (8') 1 x 6                        | 49 1/2"                    | 1               |
| bottom front brace      | (8') 1 x 6                        | 49 1/2"                    | 1               |
| front shelf braces      | (8') 1 x 6                        | about 48" (cut to fit)     | 2               |
| back shelf brace        | (8') 1 x 6                        | about 46 1/2" (cut to fit) | 1               |
| back brace              | (8') 1 x 6                        | about 48" (cut to fit)     | 2               |
| stiffeners              | 1 x 4 cedar board                 | about 14 1/2" (cut to fit) | 2               |
| 1 x 6 shelves           | (8') 1 x 6                        | about 46 1/2" (cut to fit) | 4               |
| 1 x 4 shelves           | 1 x 4 cedar board                 | about 46 1/2" (cut to fit) | 2               |
| caster filler blocks    | (8') 1 x 6                        | 6"                         | 4               |
| caster blocks           | 1 x 4 board rated for outdoor use | 6"                         | 4               |

# Assembly



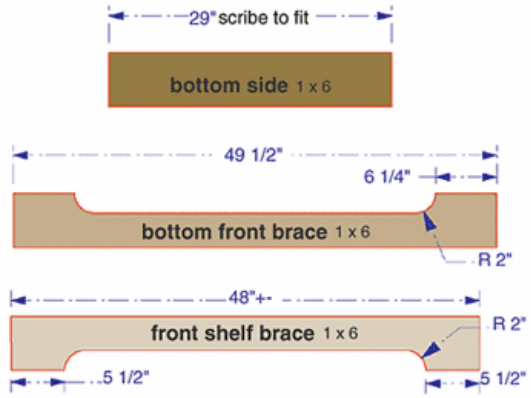
# Completed



# Cutting Diagram



top view



# Figure 1

