WOOD PROJECT LAB / PROJECT #17

Simple Wooden Patio Planter Box

Printable beginner construction plan | Version 1.3 | October 2026

Revision from V1.2: Eight bottom slats are now 8 1/4 in long, allowing approximately 1/8 in clearance at each end across the 8 1/2 in inside width. Assembly is now shown as eight steps. All other cut dimensions remain unchanged.

Finished dimensions and use

Outside: 24 in long × 10 in wide × 11 in high. Inside opening: 22 1/2 in long × 8 1/2 in wide. Two stacked nominal 1×6 cedar courses per wall. For small, removable nursery pots only; not intended to hold loose soil.

Cut list — actual dimensions (inches)

Part	Qty	Finished cut dimensions
Long wall boards	4	24 L × 5 1/2 H × 3/4 T (1×6)
Short end boards	4	8 1/2 L × 5 1/2 H × 3/4 T (1×6)
Bottom support cleats	2	22 1/2 L × 1 1/2 H × 3/4 T (1×2)
Interior end battens	2	8 L × 1 1/2 W × 3/4 T (1×2)
Bottom slats — revised	8	8 1/4 L × 2 1/2 W × 3/4 T (1×3)

Lumber shopping list

Two nominal 1×6 × 8-ft cedar boards; one nominal 1×3 × 8-ft cedar board; one nominal 1×2 × 8-ft cedar board. These are theoretical minimums for usable straight stock; buy extra for defects or errors. Confirm actual board widths and thicknesses before cutting.

Hardware and tools

16 #8 × 1 3/4-in stainless exterior screws for wall corners; 8 #8 × 1 1/4-in screws for end battens; 10 #8 × 1 1/4-in screws for cleats. Purchase extras. Use suitable pilot holes, verify screw manufacturer guidance, and ensure tips do not protrude. Saw, drill/driver, square, measuring tape, clamps, sandpaper and appropriate eye/hearing/dust protection.

Bottom slat spacing

Slats run across the 8 1/2-in inside width. Each is 8 1/4 in long, leaving 1/8 in clearance at each end when centered. Along the 22 1/2-in inside length: 8 × 2 1/2-in slat widths + 7 × 1/4-in gaps + 2 × 3/8-in end clearances = 22 1/2 in. Leave slats removable.

Assembly instructions — eight steps

1. Inspect and cut — Inspect cedar for warp, cracks and knots near screw locations. Confirm actual lumber dimensions; mark and cut the pieces using the V1.3 cut list. Label parts and smooth rough cut edges.

2. Assemble lower wall frame — Fit two 8 1/2-in end boards between two 24-in long boards. Check square, predrill and use two appropriately positioned #8 × 1 3/4-in stainless screws at each corner (8 screws). Avoid splitting end grain.

3. Assemble upper wall frame — Repeat with remaining four wall boards (8 more corner screws). Align the two frames so exterior faces and corners meet; combined wall height is 11 in.

4. Join the wall courses — Center one 8-in vertical 1×2 batten inside each short end wall. Position its bottom 2 1/2 in above the planter bottom, leaving its top 1/2 in below the rim. Fasten from outside through each end wall into batten: two screws through the lower board and two through the upper board, 8 screws total. Keep clear of corner fasteners.

5. Install bottom support cleats — Place a 22 1/2-in 1×2 cleat along each inside lower long wall. Cleat top is 1 1/2 in above the planter bottom; lower edge is flush with bottom. Predrill and fasten from outside with five #8 × 1 1/4-in screws per cleat. Check both cleats are level and screw tips do not protrude.

6. Place eight removable bottom slats — Set eight 8 1/4-in-long crosswise slats on cleats, centered across width to leave about 1/8 in clearance at each end. Along the box length, leave 3/8 in at each end and 1/4 in between adjacent 2 1/2-in-wide slats. Do not glue or screw slats down.

7. Sand and optionally finish — Ease sharp edges, remove dust and apply cedar-compatible exterior finish if desired, following product instructions. Do not block drainage gaps.

8. Place and use — Position on a stable, level patio or porch with drainage beneath. Insert small removable nursery pots with drainage holes; distribute weight, keep wood out of standing water, and inspect regularly for looseness or splitting.

Critical fit check

Dry-fit one slat before final assembly. The 8 1/4-in dimension assumes an 8 1/2-in finished inside width. If actual lumber thickness or wood movement changes that opening, adjust slat lengths to maintain a small free clearance without losing adequate bearing on the support cleats.

Construction checks and limitations

Dimension audit

Outside width: 8 1/2-in end board + two 3/4-in wall thicknesses = 10 in. Inside length: 24 - 2(3/4) = 22 1/2 in. Wall height: two 5 1/2-in courses = 11 in. Inside width: 8 1/2 in. Slat end clearance: (8 1/2 - 8 1/4)/2 = 1/8 in each end.

Support and batten geometry

Cleat top surfaces are 1 1/2 in above wall bottom; 3/4-in-thick slat tops sit at 2 1/4 in. End battens begin 2 1/2 in above wall bottom, leaving 1/4 in vertical separation above the slat tops. Keep battens clear of the slat removal path.

Fastener positioning checks

Place five cleat screws along each cleat at approximately 2 1/4, 6 3/4, 11 1/4, 15 3/4 and 20 1/4 in from one cleat end. Place two corner screws per wall board at approximately 1 3/8 and 4 1/8 in above that board's lower edge, centered on the 3/4-in end-board thickness. End-batten screws can be positioned at approximately 4, 5, 8 and 9 in above planter bottom. These are layout references, not substitutes for checking manufacturer minimum edge distances, pilot holes, screw interference and actual stock.

Important safety and use limitations

This is an educational, conceptual beginner plan, not physically built, load-tested or structurally certified. End-grain joints and thin cedar stock limit strength. No tested weight rating is claimed. Use only small, lightweight removable nursery pots. Do not fill the wooden box directly with soil; do not sit, stand, or lift the planter while loaded. Stop use if joints loosen, boards split, or slats deflect.

Protect eyes, hearing and lungs when cutting and sanding. Follow saw and fastener manufacturer instructions. Check screw-tip clearance and fastener corrosion compatibility with cedar. Drain nursery pots appropriately; avoid trapping water against wood or finished patio surfaces.

Publication consistency checklist

Use Version 1.3 on the website and both download buttons. Cut list and Step 6 must specify 8 1/4-in bottom slat length, not 8 1/2 in. All eight assembly steps must appear in the article and PDF. Preserve the project URL /projects/wooden-patio-planter-box and sitewide noindex, follow until launch.