Shed & Bench shedandbench.com

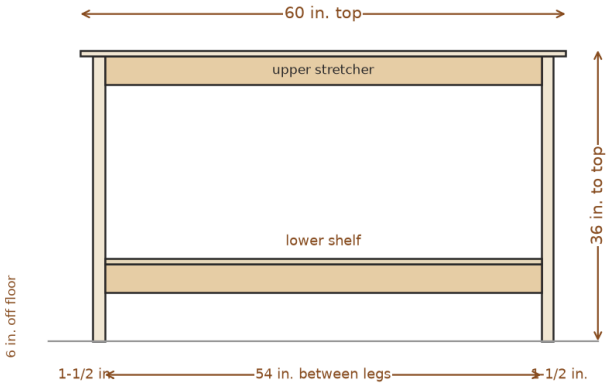
2x4 Workbench: Printable Plan

Materials list, cut list, key steps, and diagrams. Free to print and use.

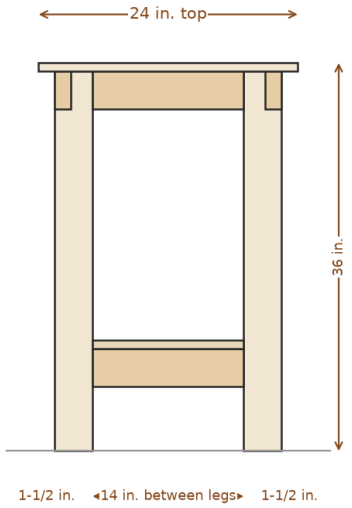
Not engineered or load-tested. No engineer has reviewed this plan. Shed & Bench worked out the dimensions and checked that the parts fit together on paper, but strength depends on your lumber, fasteners, and assembly. Don't treat the sizes on this page as a rated capacity. Check every screw before you put weight on the bench.

At a glance: top 60 in. long × 24 in. deep × 3/4 in. plywood, 36 in. high; 1-1/2 in. overhang on all sides; legs 35-1/4 in.; lower shelf 54 in. × 14 in., surface 10-1/4 in. off the floor. Lumber: five 2x4 × 8 ft and one 4×8 sheet of 3/4 in. plywood (optional sixth 2x4 as a spare). Hardware: 36 of 3 in. screws and 45 of 1-5/8 in. or 2 in. screws. All sizes are actual lumber sizes. Full instructions: shedandbench.com/2x4-workbench-plans/

Front view



End view



Shed & Bench · shedandbench.com · not to scale for cutting; use the cut list

Overall dimensions

Materials list

Lumber

- Five 2x4 × 8 ft, kiln-dried or select construction lumber (optional sixth as a spare)
- One 4×8 sheet of 3/4 in. sanded plywood (AC or BC)

Hardware

- About 45 construction screws, 3 in. (the plan uses 36: two at each end of every rail, stretcher, and the mid support)
- About 55 wood screws, 1-5/8 in. or 2 in., for the top and the shelf (the plan uses 45)
- Optional: wood glue at the frame joints, 120-grit sandpaper, and a clear or paint finish

A note on cost: we don't print a total, because lumber prices change by region and by week. Price the lumber and hardware list at your local store before you start.

Cut list

All sizes are actual dimensions (a dressed 2x4 is 1-1/2 × 3-1/2 in.).

Part	Material	Qty	Length / size	Notes
Legs	2x4	4	35-1/4 in.	Square ends; all four the same length
Upper long stretchers (front and back)	2x4	2	54 in.	On edge, flush with the top of the legs, outer face flush with the front or back of the legs
Upper end rails	2x4	2	14 in.	On edge, flush with the top of the legs, between the two legs of each end
Lower long stretchers (front and back)	2x4	2	54 in.	On edge; sit against the inner faces of the legs so the shelf drops in
Lower end rails	2x4	2	14 in.	On edge, between the legs, bottoms 6 in. above the floor
Mid support (under the top)	2x4	1	18 in.	On edge, at mid-length, between the front and back upper stretchers
Top	3/4 in. plywood	1	60 in. x 24 in.	One rectangle; grain along the 60 in. length
Lower shelf	3/4 in. plywood	1	54 in. x 14 in.	One rectangle; drops in between the legs

Cutting diagram: which parts come from which board

Each 8-ft 2x4 gets a 1/2 in. trim to square one end, plus a 1/8 in. kerf between cuts. Leftovers are listed in the diagram.

Board	Cut from it
2x4 x 8 ft #1	upper long stretchers (front and back) (54 in.) + legs (35-1/4 in.)
2x4 x 8 ft #2	upper long stretchers (front and back) (54 in.) + legs (35-1/4 in.)
2x4 x 8 ft #3	lower long stretchers (front and back) (54 in.) + legs (35-1/4 in.)
2x4 x 8 ft #4	lower long stretchers (front and back) (54 in.) + legs (35-1/4 in.)
2x4 x 8 ft #5	mid support (under the top) (18 in.) + upper end rails (14 in.) + upper end rails (14 in.) + lower end rails (14 in.) + lower end rails (14 in.)

Plywood: both the top and the shelf come out of one 4×8 sheet.

A practical cut order: cut the 60 in. × 24 in. top from one corner, with the face grain along the length, then cut the 54 in. × 14 in. shelf from the remaining sheet. Leave a 1/8 in. kerf between the two parts.

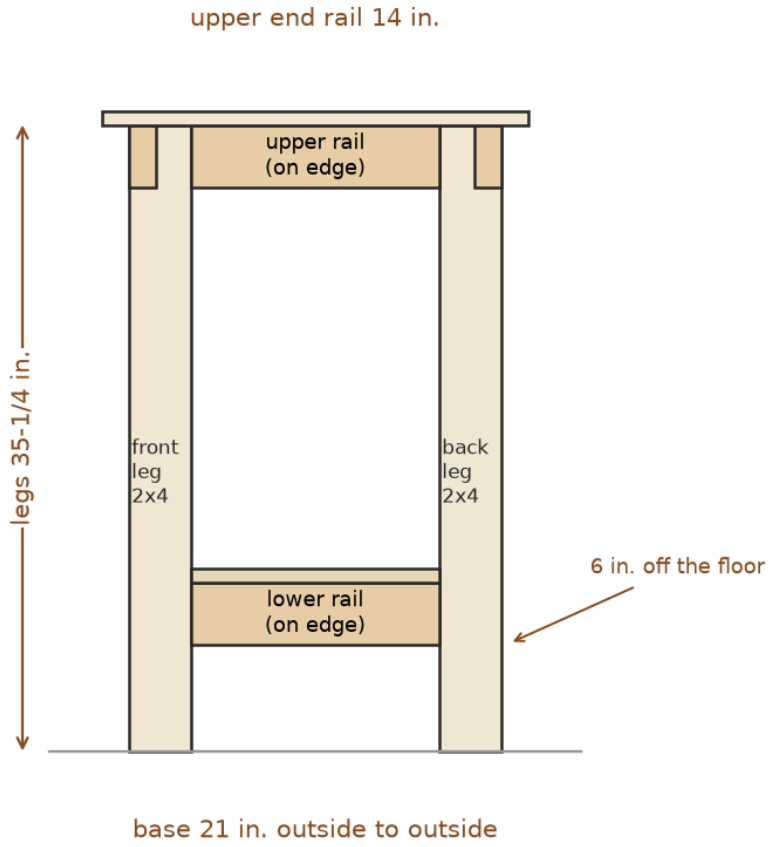
Key steps

1. **Cut and prep.** Cut four 35-1/4 in. legs, four 54 in. stretchers (two upper, two lower), four 14 in. end rails, and one 18 in. mid support from the five 8-ft 2x4s, following the cutting diagram. Cut the 60 in. × 24 in. top and the 54 in. × 14 in. shelf from one 4×8 sheet of 3/4 in. plywood. Label the parts and ease the top edges.
2. **End assemblies.** Each end is two legs, one upper rail, and one lower rail. Lay two legs 21 in. apart outside to outside. Set the upper rail between the legs, flush with the tops, on edge. Set the lower rail with its bottom 6 in. off the floor. Square, clamp, and drive two 3 in. screws through each leg into the end grain of each rail (or two pocket-hole screws per end). Build the second end the same way.
3. **Long stretchers.** Stand the ends 54 in. apart inside to inside (57 in. outside to outside). Clamp the upper long stretchers flush with the tops of the legs, outer faces flush with the front and back of the legs. Check the diagonals (about 60-3/4 in. each). Drive two 3 in. screws through each leg into each stretcher end. Fit the lower long stretchers against the inner faces of the legs, bottoms 6 in. off the floor, and screw them the same way.
4. **Mid support and top.** Set the 18 in. mid support on edge between the front and back upper stretchers at mid-length (centerline 30 in. from each end of the top), flush with the tops, and drive two 3 in. screws at each end. Set the plywood top with a 1-1/2 in. overhang on all four sides. Screw it down with 1-5/8 in. or 2 in. screws about every 8 in. on the long edges and every 6 in. on the short edges and mid support (27 screws).
5. **Lower shelf.** Drop the 54 in. × 14 in. shelf in between the legs so it rests on the four lower rails and stretchers (top of the shelf 10-1/4 in. off the floor). Screw it down with 1-5/8 in. or 2 in. screws (18 screws).
6. **Final checks.** Confirm the bench sits flat. Recheck every screw, especially the through-screws into end grain. Sand the top and ease the corners. Add a finish if you want, and let it cure before you use the top as a work surface.

Wear eye and hearing protection. Pre-drill screw holes near board ends. This design isn't engineered or load-tested.

Diagrams

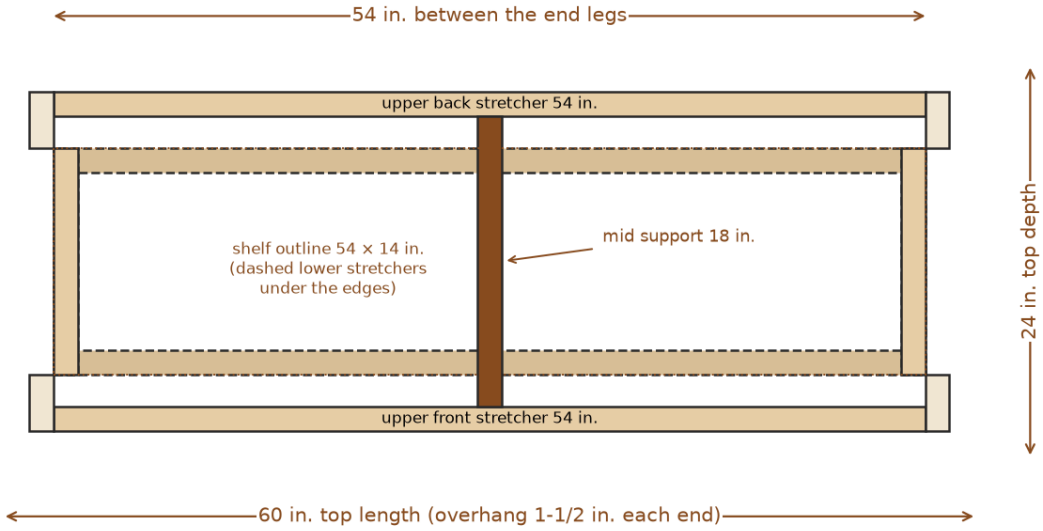
End assembly (make 2)



Make two identical ends. Each is two 2x4 legs, one 14 in. upper rail, and one 14 in. lower rail.
Two 3 in. screws through the face of each leg into the end grain of each rail (or two pocket-hole screws per end).
The plywood top and shelf are added after the long stretchers connect the two ends.

End assembly (make 2)

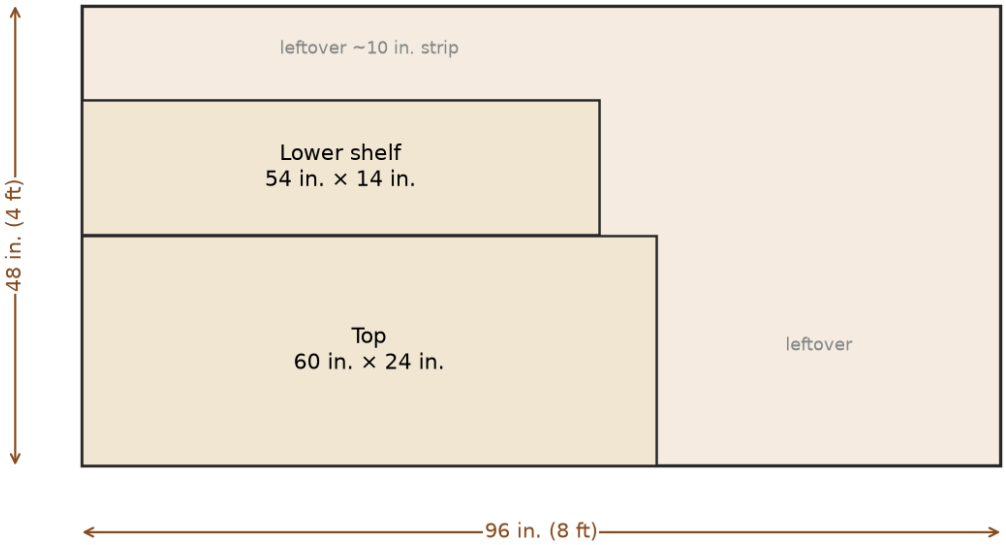
Framing plan (looking down, top removed)



Looking down with the top removed. Solid tan = upper rails and stretchers (flush with the top of the legs). Dashed = lower rails and stretchers (bottoms 6 in. off the floor). The mid support sits between the front and back upper stretchers at mid-length (centerline 30 in. from each end of the top).

Framing plan (looking down, top removed)

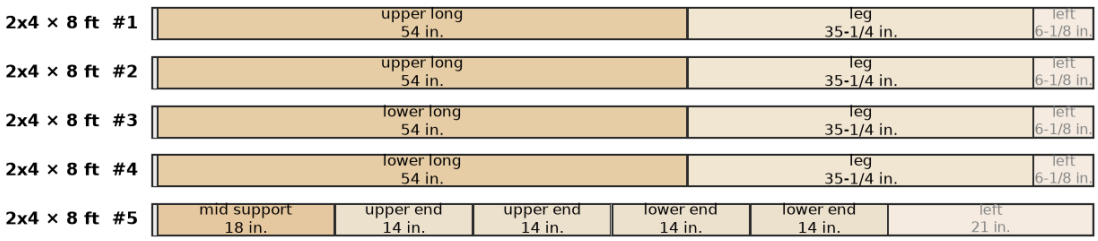
Plywood layout (one 4×8 sheet)



One 4×8 sheet of 3/4 in. plywood. The packing leaves a saw kerf (1/8 in.) between the two parts. A practical cut order: cut the 60 × 24 in. top from one corner (grain along the 60 in. length), then cut the 54 × 14 in. shelf from the remaining sheet.

Plywood layout (one 4×8 sheet)

Cutting diagram (five 8-ft 2x4s)



Each 8-ft board gets a 1/2 in. trim to square one end, plus a 1/8 in. kerf between cuts. Boards #1–#4 have about 6-1/8 in. left. Board #5 has about 21 in. left. Nothing is a tight fit. A sixth 8-ft 2x4 as a spare is optional, for a bowed board or a miscut.

Cutting diagram (five 8-ft 2x4s)