

Adjustable Sawhorses

A level worktable will help you assemble your projects, both plumb and square. The adjustable height mechanism shown in the **diagram** easily levels at four points using simple T-nuts and cap screws.

To begin, cut the sawhorse and riser parts. We used $\frac{3}{4}$ " poplar for the legs and cross brace and $\frac{3}{4}$ " Birch veneer MDF for the risers. The height of the horses alone is good for working on cabinets. The addition of the riser provides a good height for routing, sanding and other flat work.

A band saw is the safest tool for making angle cuts (**diagram**) on the legs. A table saw can be used, but great care is needed for safety.

Using a 1" spade bit, drill and countersink for the heads, nuts and washers of the $\frac{3}{8}$ " machine bolts which secure the legs to the cross brace. Now lay two legs on edge on two $1\frac{1}{2}$ " strips to locate the legs the appropriate distance in from the end of the cross brace. Stand the cross brace vertically and place it into the notches of the two legs, then clamp the assembly together and check for square.

Next, drill a $\frac{1}{4}$ " pilot hole through the center of the previously made clearance hole. Then redrill using a $\frac{7}{16}$ " bit and bolt the assembly together. Repeat the process with the other end. Lastly, attach the leg brace support plates with screws and glue.

Lay out, cut and radius the hand holds on the sides of the riser boxes, then assemble using butt joints, screws and glue. Attach the top piece, then cut the notches in the bottom of the riser and set the unit on the horse.

Next, drill a $\frac{3}{4}$ " hole through the overhang on the riser and the center of the cross brace for the dowel indexing pin.

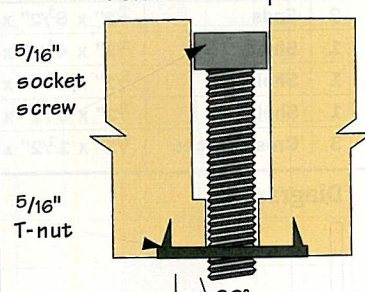
On the top edge of the cross brace and the top of the riser box, mark 24" centers in the middle of each piece. Drill two $\frac{7}{8}$ " x $\frac{1}{8}$ " deep holes with a Forstner or spade bit. Then place a punch out from a metal electrical box into each hole. The disk has about a $\frac{7}{8}$ " diameter and will allow the cap screws in the worktop to rest on a hard surface. Now install T-nuts and cap screws into the top (a $1\frac{3}{4}$ " solid core door cut to size works well) on 24" centers so the screws line up with the inserts.



Schedule of Materials: Sawhorses

No.	Item	Dimensions T W L	Material
8	Legs	$1\frac{3}{4}$ " x $3\frac{1}{2}$ " x $21\frac{5}{8}$ "	Poplar
2	Cross braces	$1\frac{3}{4}$ " x $3\frac{1}{2}$ " x 30"	Poplar
4	Brace plates	$\frac{1}{2}$ " x 8" x 10"	Plywood
4	Riser sides	$\frac{3}{4}$ " x 29" x 11"	Birch veneer MDF
4	Ends	$\frac{3}{4}$ " x $1\frac{3}{4}$ " x 8"	Birch veneer MDF
2	Bottom	$\frac{3}{4}$ " x $1\frac{3}{4}$ " x $27\frac{1}{2}$ "	Birch veneer MDF
2	Riser top	$\frac{3}{4}$ " x $3\frac{1}{4}$ " x 29"	Birch veneer MDF
2	Index pins	$\frac{3}{4}$ " dia. x 4"	Oak dowel

Detail - table top leveler



Diagram

