The 4hr $70 Workbench

Beginner Level Project

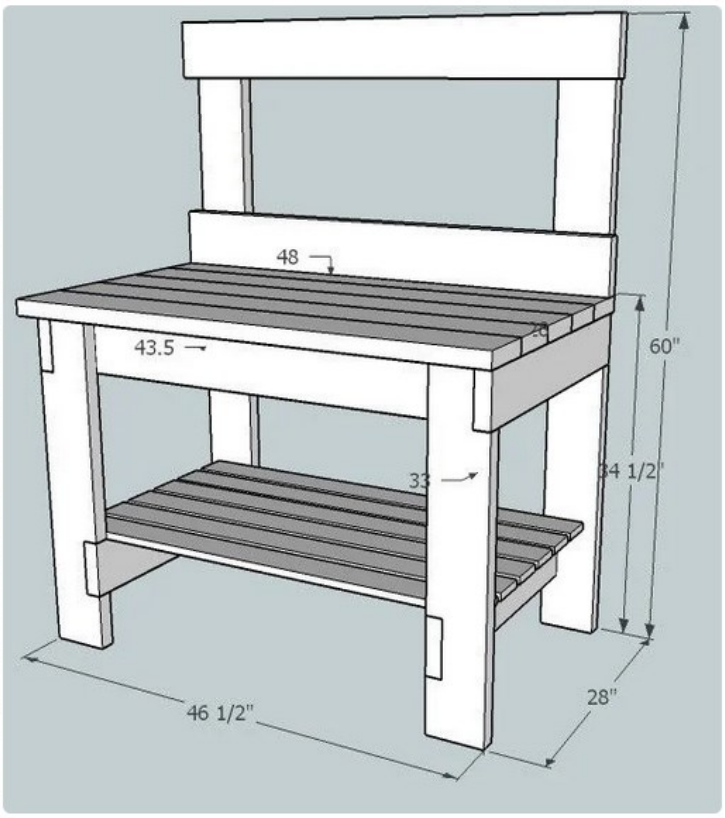
Intro: 4hr $70 Workbench

I decided I wanted something more compact than a regular large workbecnch. This design is extremely sturdy and with some simple checks I was able to keep it square very easily.

My first time I built this very simple design in 4 hours. I think I could get it done in 3 to do it again. I also like that it was entirely cross-cuts and the only tricky bits are the notches, but a $15 Harbor Freight tool made quick work of that.

Step 1: Materials

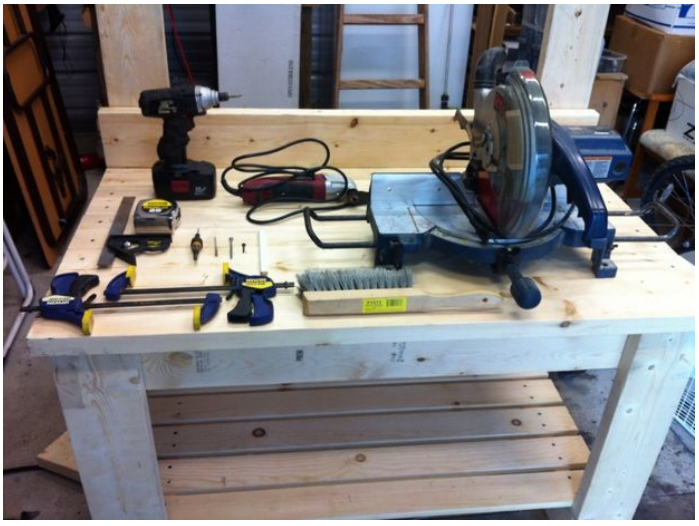
(6) 2" x 6" x 8'
(1) 2" x 6" x 10'
(4) 1" x 4" x 8'
2 1/2" deck screws
1 5/8" drywall screws



Step 2: Tools

Power Tools
- power mitre saw (the lack of sheet lumber means this is your best friend)
- saw capable of plunge cuts (I figured this out later and would have saved me lots of time. this one was $15 from Harbor Freight)
- opt. table saw (this can be used to make the notches, but it is more dangerous, time consuming and will also require chisels)
- drill, and drill/driver (I prefer and impact driver)

Hand Tools
- Square
- Tape measure
- bits for drilling and screws.
- countersink bit (optional, but recommended)
- clamps
- brush



Step 3: Measure and make all cross cuts

Measure and make the following cross cuts
2" x 6"
(6) 48" - Table top and backsplash (this can be any length between 48" and 72")
(2) 43 1/2" - Top supports (Horizontal for the front and back. This determines the width of the base)
(2) 60" - Back legs (this can be any length over 40". I chose 5ft as it was half of the 10' board)
(2) 33" - Front legs (wait to measure these until after you cut the 28" boards. You will have a large enough scrap out of each for this piece.)
(4) 28" - Side supports (measure from each factory edge to make two out of each 8' board)

1" x 4"
(6) 44" - Bottom shelf (any adjustments to the width of the base need to be reflected here)
(2) 27" - Top re-enforcements (on the original these are mounted outside of the base, but mine are inboard. I had to trim mine a bit to fit inside the base.)

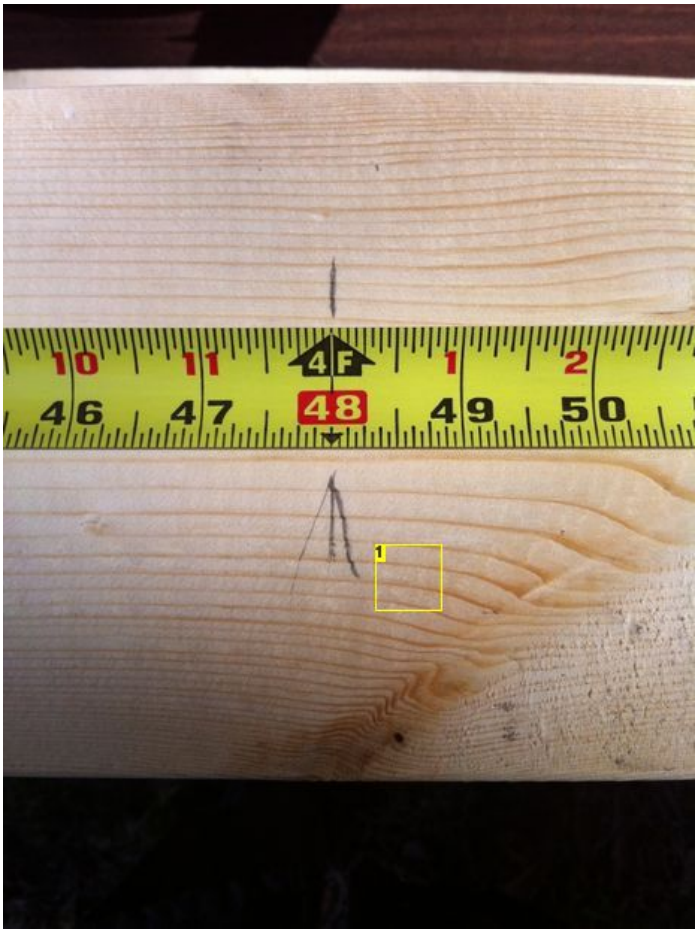


Image Notes
1. If you are using a mitre saw a heavy line is not always needed. Arrows can help show the exact point you were marking.

Image Notes
1. approach the mark slowly to make sure the blade is touching down on your mark. Cut with the blade on the outside edge to make sure the board is the length you intended

Image Notes
1. Supporting the end of your board with scrap make for a much easier time cutting.

Step 4: Mark and make your notches

This was the trickiest part of the whole build and it is not difficult.

Using scrap 2x6, mark the notches on the front and back legs. With the legs laid flat the bottom notches will be on the outside and the top will be on the inside. The top notches on the front legs with be all the way at the end.

Using the square you can transfer the line markings to the other boards.

If you have the plunge saw it is very easy to cut out the notches following the lines (highly recommended).

I didn't remember we had one of those so I started by clamping all of the boards together and running them through the table saw several times to prepare for chiseling to clean out the notches.

Image Notes
1. The height of the bottom shelf is determined by placing a scrap of 2x6 under the piece you are going to mark with.

Image Notes
1. mark your bottom notches. I did this on both side in mirror so I didn't lose track

Image Notes
1. The upper notches on the front legs are flush with the top.

Image Notes
1. transfer the marks to the back legs

Image Notes
1. The non-recommended way is to clamp them all together and run them through the table saw.

Step 5: Build the frame

This is the step where the genius of this design is revealed. It is also where some careful measurement will make for a very square table.

Build each "side" first by pre-drilling and using the deck screws to affix the bottom and top sides to the front and rear legs on your work table.

The sides will now free-stand and you can attach to front and rear top supports. Check the width at the front and back to make sure it is square and you attach these pieces.

Image Notes
1. Predrill and set the screws in the sides. I used 2 screws for each attachment. 3" will work fine for these.

Image Notes
1. The sides will stand on their own so it makes attaching the front and back easy.

Image Notes
1. Attach the back and then measure the width at the back and front to make any adjustments.

Step 6: Attach the shelf and top

The bottom shelf also squares the bottom of the legs, so measure carefully.

Carefully attach one 1x4 at the front and one at the back using drywall screws. Make sure the overhangs are even and that the bottom is square.

Use a scrap 1x4 to set the spacing for the rest of the shelf. They should be evenly spaced.

Place the five 2x6 top boards in place. I used the 1 1/2" side of a scrap 2x6 to find the spacing for the outside screws (you will need to measure differently if you went wider than 48"). Making sure the overhangs are even attach them with deck screws.

Set and screw the backsplash in place. I left this off for now and I may get a little more creative there.

Flip the bench over and attach the two 1x4 re-enforcements to the underside of the top with drywall screws. Since my table is narrow and will be supporting a lot of weight I cut them down a little more and put them inboard. On the original 6' wide table these hold the ends of the table top together.

Step 7: Place and enjoy

I was able to squeeze the bench against the wall and had plenty of room for my roll away cart in front of it. I am very pleased with this project and think it will be very sturdy and have a long life.


US GENERAL