# Customizable Table Saw Station Plans


**by**

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**from**

**Our Home from Scratch**

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Attempt at your own risk. Some woodworking skills are required.

This procedure contains affiliate links.

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# Introduction

For a lot of DIYers, spending thousands of dollars for one professional-quality power tool is not an option. Most of us have limited budgets and there are a lot of tools that we need to buy. The high-end table and miter saws are well over a thousand dollar. While we can get by just fine with some of the lower priced models, the higher end tools tend to come with some pretty sweet features. I built this table saw station to capture some of those sought after features of the more expensive models.

This table saw station is designed to accept a smaller, portable contractor grade saw. Contractor grade table saws are significantly lower priced, but nearly all of them have very small work surfaces, which makes cutting larger pieces of wood a challenge. This station will give you a much larger work area.

Another improvement to note is the fence. Although you'll either have to buy a separate unit or build your own, having a larger, more accurate fence will give you better results on your projects and will be easier to use.

These plans are designed to be fully customizable. You'll just need to take three quick measurements of your table saw, plug them into the form and the parts list will adapt to the appropriate dimensions to accommodate your saw.

If you get stuck on any particular part of these woodworking plans, feel free to email me at John@ourhomefromscratch.com with any questions you may have.

I hope you enjoy the challenge of building this project and get as much use out of this table saw station as I have.

R,

John

# Getting Started

These woodworking plans will take you step by step through the build of the table saw station. The first thing you should do is read through these procedures to familiarize yourself with the materials, tools and skill requirements necessary to complete them.

Please not that due to the wide variety of table saw dimensions, a cut sheet for this project was not practical.

# Tools

See a complete list of all the tools I used for my project on my new Project Tools page.

# Table Saw Dimensions

Before we begin, you'll need to take three basic measurements: the length, width and height of your existing table saw. These dimensions should NOT include the fence or the stand. You can include any side or rear extensions. Refer to Figure 1 for further guidance.

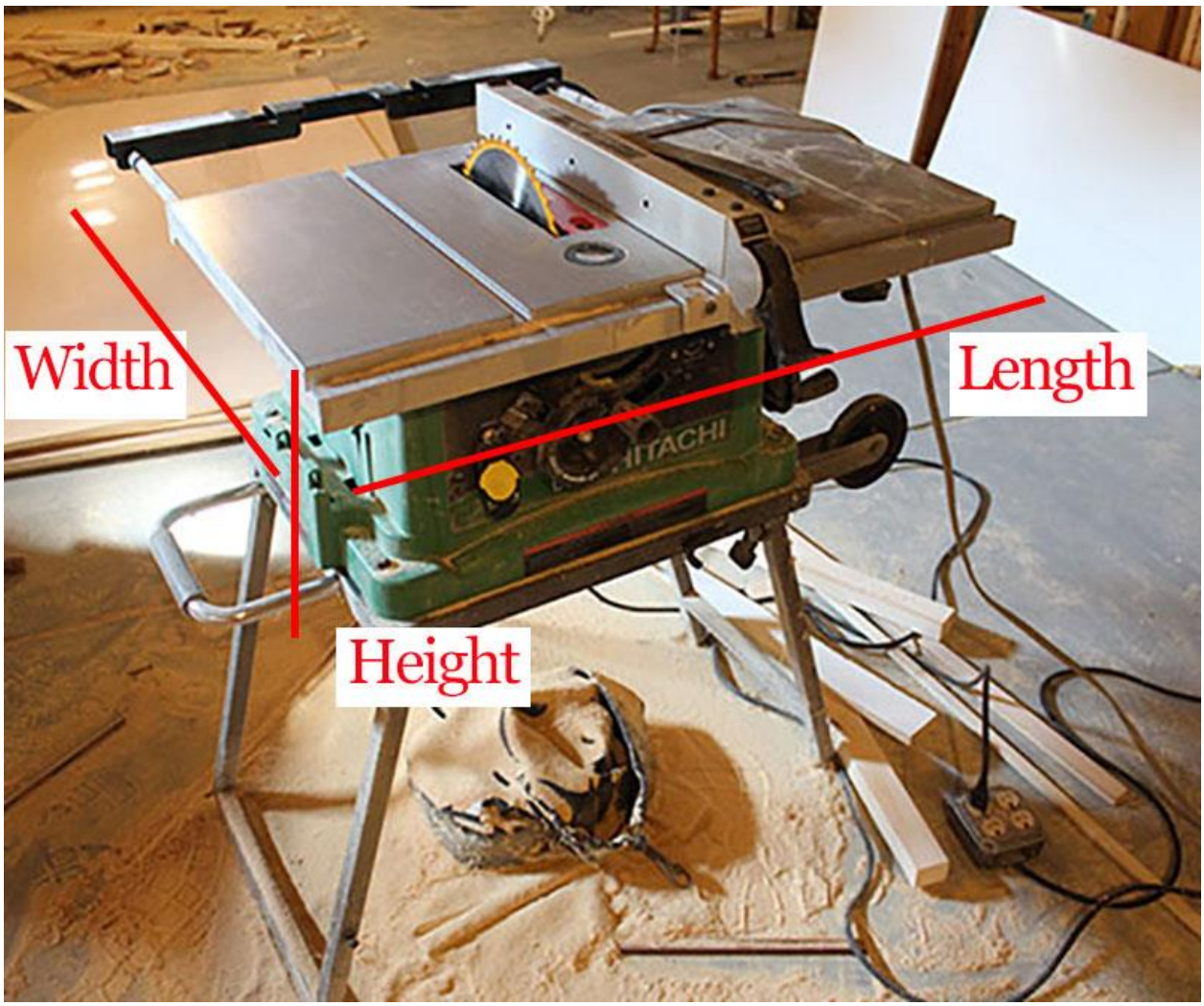


**Figure 1: Table Saw Dimensions**

Type in the values of the measurements in the boxes below. The dimensions must be in inches in order for the calculator to work.

**Length:** 31.75

**Width:** 23.5

**Height:** 11.25

# Material:

Table 1 is a list of all the lumber and hardware you'll need to build the table saw station. All of this lumber should be available at your local large hardware store (Lowe's, Home Depot, Manard's, True Value, etc.). You will need to cut out each of the individual parts out from this list. The individual parts are listed in later sections. In addition to the material listed below, you'll also need 1-1/4" long coarse pocket screws, 1-1/2" long wood screws, wood glue and a brad nailer (optional).

**TABLE 1: Material Shopping List**

| Item | Description | Width | Length | Qty |
|---|---|---|---|---|
| 1 | 3/4" Thick Birch Plywood | 3/4" | 96" | 1 |
| 2 | 3/4" Thick Melamine or Other | 3/4" | 96" | 1 |
| 3 | Caster Wheels | | | 4 |

# Part 1: The Outer Frame

To make this project easier to build, we're going to construct it in three different sections. The first is the outer frame, which consists of the legs, back brace, side braces and feet. This part of the project does not change dimensions from one table saw to the next.

Table 2 has a list of all the parts required for the outer frame.

**TABLE 2: Outer Frame Parts List**

| Item | Description | Length | Width | Thickness | Qty |
|---|---|---|---|---|---|
| 1 | Legs | 27.5" | 3.5" | 3/4" | 8 |
| 2 | Back Brace | 42.5" | 3.5" | 3/4" | 1 |
| 3 | Side Braces | 37.5" | 3.5" | 3/4" | 2 |
| 4 | Feet | 4.25" | 3.5" | 3/4" | 8 |

1. Start construction on the outer frame by drilling three pocket screw holes into the sides of one of the leg boards. Attach it to a non-drilled leg board using pocket screws and wood glue. The finished leg piece can be seen in Figure 2. Repeat for the other three legs as in Figure 3.

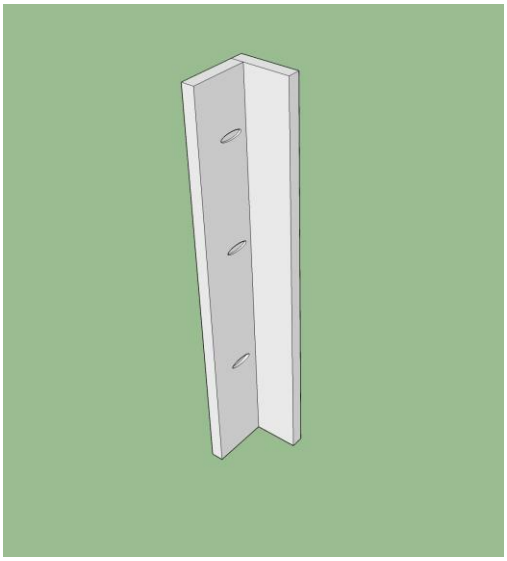

**Figure 2: Legs**

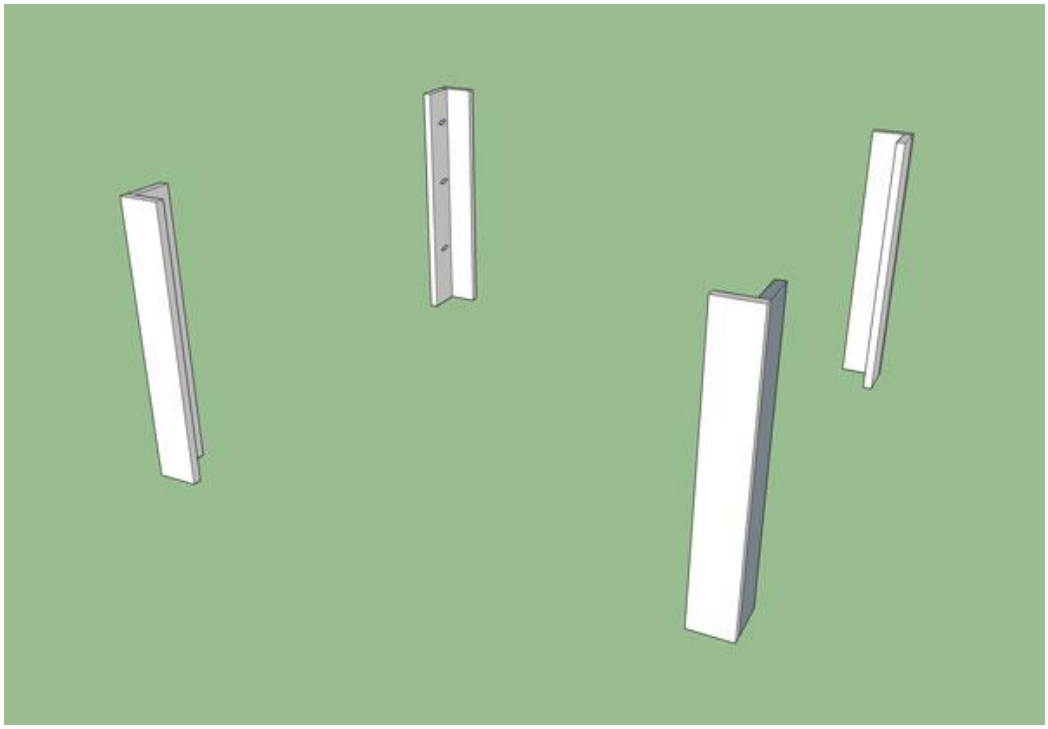

**Figure 3: Four Assembled Legs**

2. Drill two pocket screw holes onto each end of the Back Brace and the Side Braces. Using pocket screws, fasten the Back Brace between two Legs. Fasten the Side Braces to each side of the Back Brace-Legs assembly. Fasten the open end of the Side Braces to a Leg. See Figure 4.

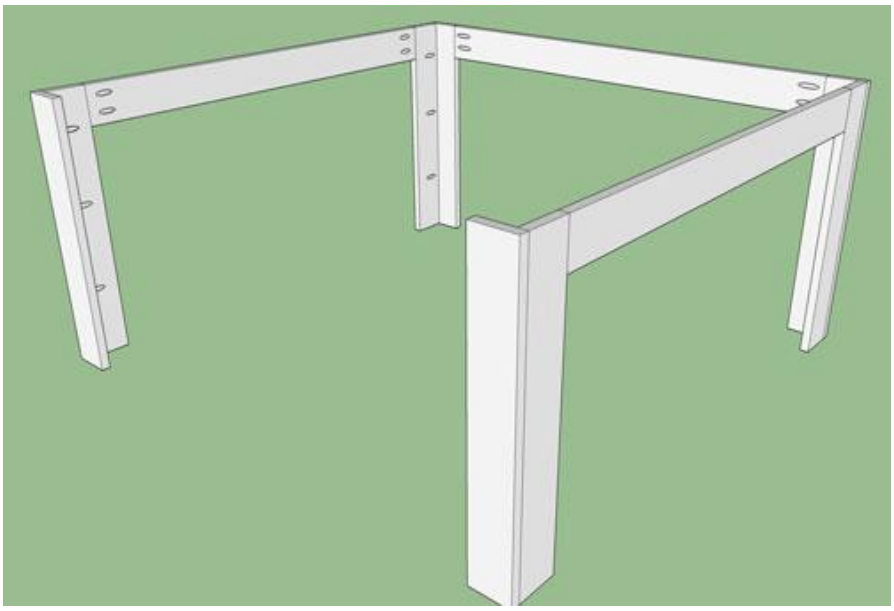

**Figure 4: Back and Side Braces Attached to Legs**

3. To assemble the Feet, glue and brad nail one Foot board to another and then attach to the bottom of each set of Legs. You can attach the Feet to the Legs by using pocket screws from the Legs into the Feet. This step completes the assembly of the Outer Frame.

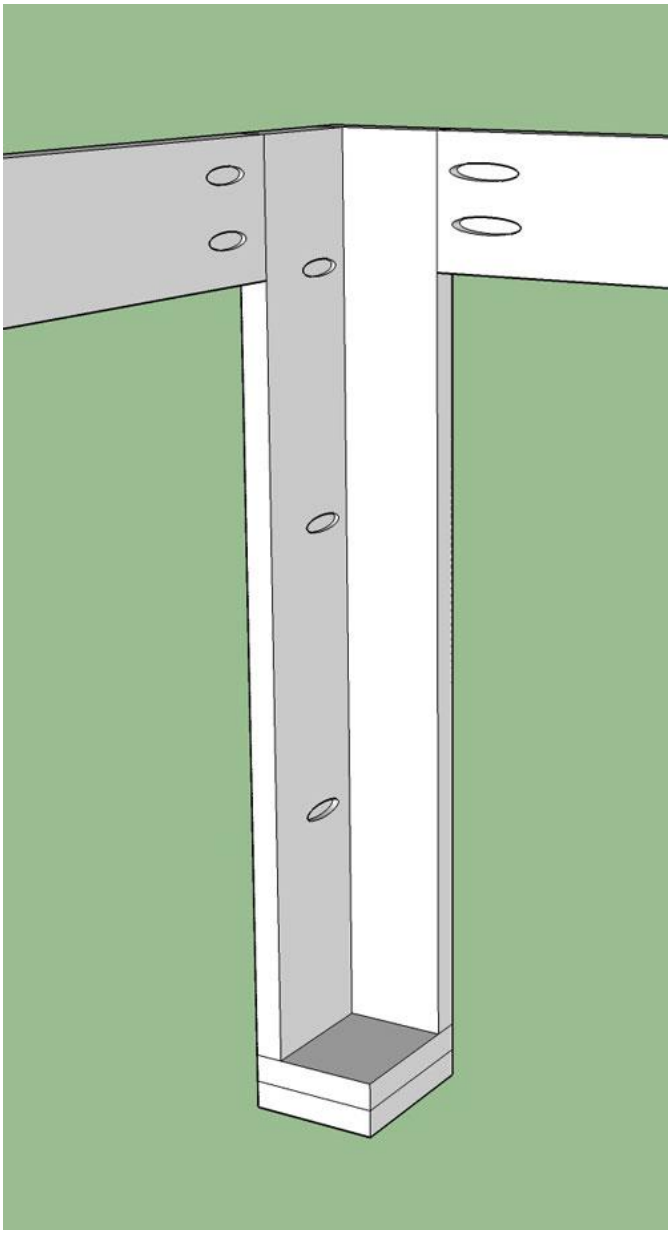

**Figure 5: Feet Fastened to the Legs**

# Part 2: The Lower Structure

The Lower Structure will support the weight of the table saw. Its height from the top of the Feet is critical to ensure the table saw is flush with the top of the table. The Lower Braces Prop Sticks can be cut from a piece of scrap 2x4 and can be used to ensure the height of the Lower Structure is set properly.

**TABLE 3: Lower Structure Parts List**

| Item | Description | Length | Width | Thickness | Qty. |
|---|---|---|---|---|---|
| 1 | Lower Front and Back Braces | 48" | 3.5" | 3/4" | 2 |
| 2 | Lower Braces Prop Stick | 12 " | 1.5" | 1.5" | 2 |
| 3 | Lower Side Braces | 45" | 3.5" | 3/4" | 2 |
| 4 | Lower Middle Brace | 46.5" | 3.5" | 3/4" | 1 |
| 5 | Small Side Brace | 22-7/8" | 3.5" | 3/4" | 1 |
| 6 | Table Saw Supports | 24-3/8" | 3.5" | 3/4" | 2 |

4. Start the assembly of the Lower Structure by resting the Lower Braces Prop Sticks on the two rear Feet. The Lower Back Brace board can then be rested on the Prop Stick and fastened to the Legs using wood glue and wood screws. Repeat for the Lower Front Brace. See Figure 6.

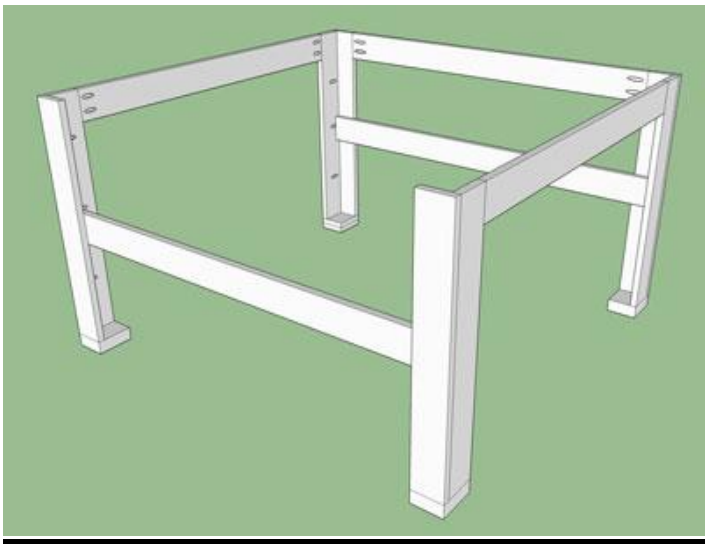

**Figure 6: Lower Front and Back Braces Installed**

5. Repeat Step 4 for the Lower Side Braces. See Figure 7. Discard the Prop Sticks.

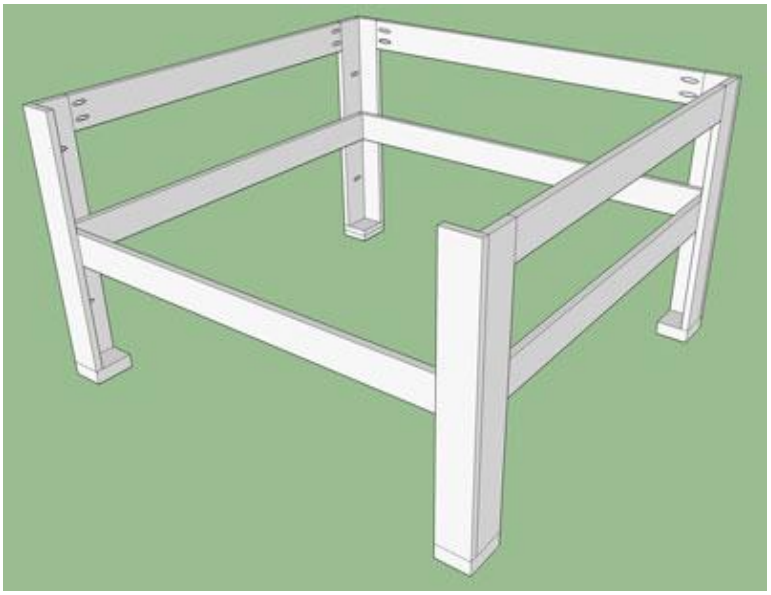

**Figure 7: Lower Side Braces**

6. Install the Lower Middle Brace by marking the middle of the Lower Side Braces on each side and installing it with either pocket screws or wood screws. See Figure 8.

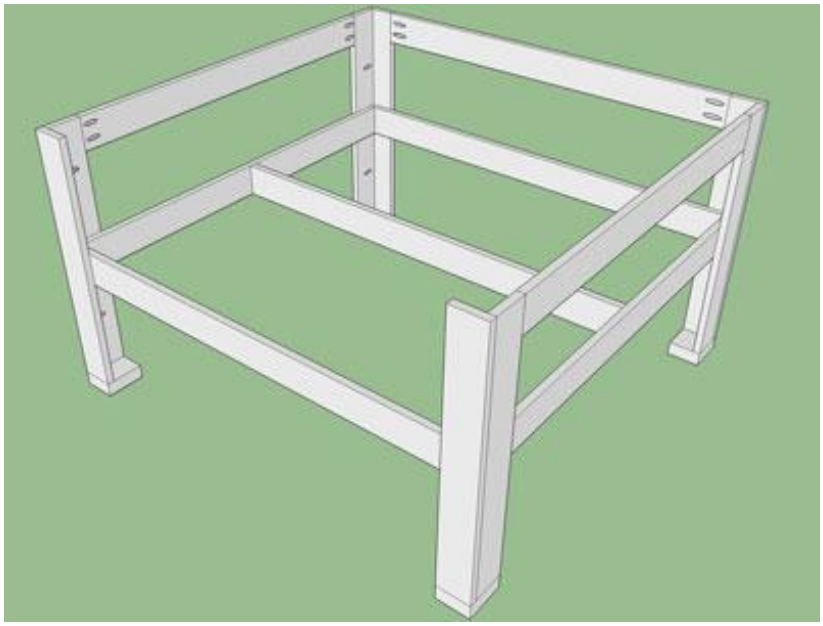

**Figure 8: Lower Middle Brace**

7. Now install the Small Side Brace by measuring X" from the left side of the lower frame, where for your table saw X = 32.25 ". Mark the Lower Front Brace and the Lower Middle Brace with a pencil at that measurement. The Small Side Brace's left edge should align with that pencil mark. See Figure 9.

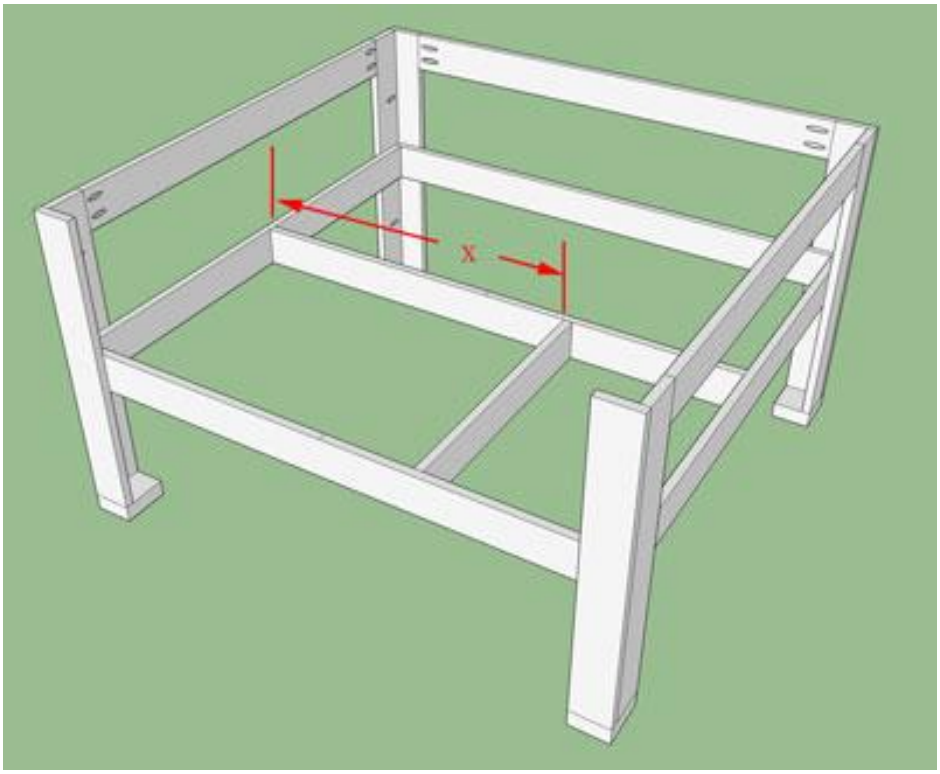


**Figure 9: Small Side Brace**

8. The Table Saw Supports can now be installed. Both boards will lay over the Lower Braces as depicted in Figure 10. It's best to use your table saw to determine the exact location for these boards. Make sure there is a sufficient space beneath the center of your table saw for a dust collection bag or connection.

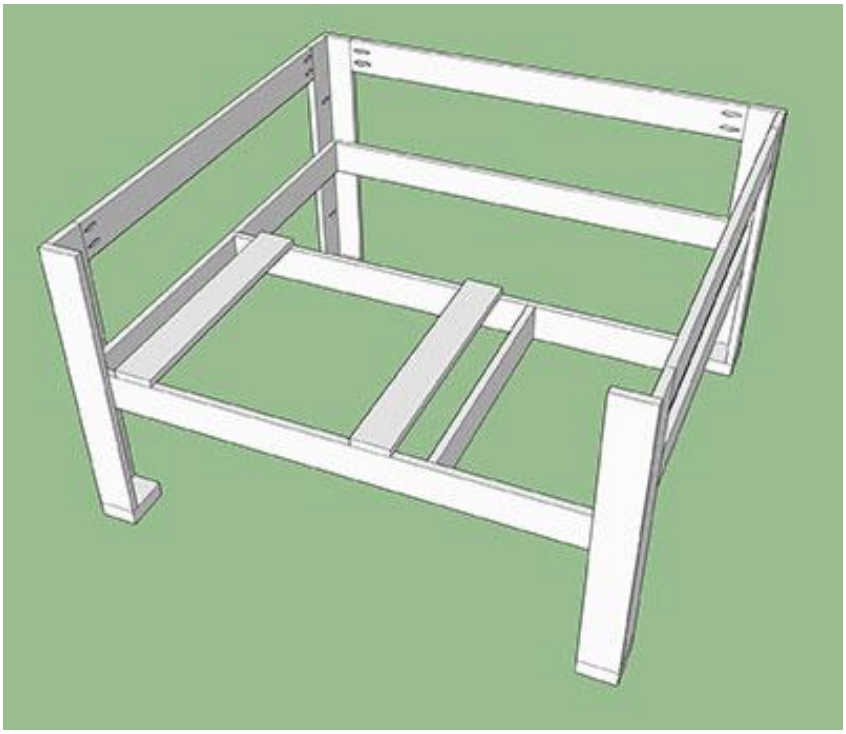

**Figure 10: Table Saw Support Boards**

# Part 2: The Upper Structure

The Upper Structure consists of two small, separate frames that support the weight of the work surface, the Rear Frame and the Front Frame. Their exact dimensions depend on the size of your table saw.

**TABLE 4: Upper Structure Parts List**

| Item | Description | Length | Width | Thickness | Qty. |
|---|---|---|---|---|---|
| 1 | Vertical Supports | 8.5 " | 3.5" | 3/4" | 2 |
| 2 | Rear Top Frame Joists | 48" | 2.75" | 3/4" | 2 |
| 3 | Rear Top Frame Ribs | 21 " | 2.75" | 3/4" | 3 |
| 4 | Front Top Frame Joists | 24 " | 2.75" | 3/4" | 2 |
| 5 | Front Top Frame Sides | 14.25 " | 2.75" | 3/4" | 2 |
| 6 | Front Cover | 11.5 " | 3.5" | 3/4" | 1 |
| 7 | Melamine Top | 48" | 46.5" | 3/4" | 1 |

9. We'll start the Upper Structure by installing the Vertical Supports. Drill two or three pocket screws into the side of one of the Vertical Support boards and fasten it to the other Vertical Support Board exactly like you did with the Legs in Step 1 using glue and pocket screws.

10. Install the Vertical Support boards to the corner of the Lower Front Support and the Side Support with glue and pocket screws. See Figure 11.

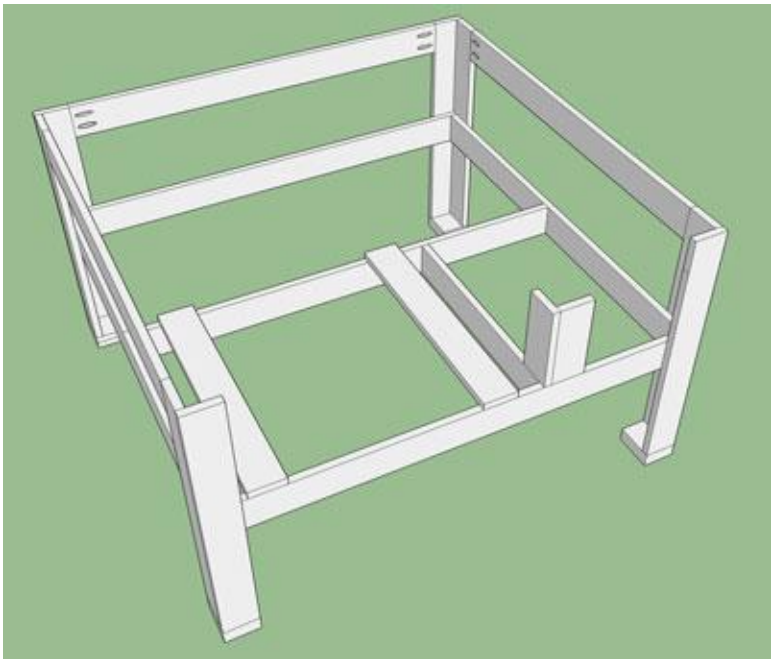

**Figure 11: Vertical Support Boards Installed**

11. Now we can start installing the Rear Top Frame. Begin by screwing one of the Rear Top Frame Joists into the Back Brace. Use glue and wood screws. Make sure the Rear Top Frame Joist is ¾" below the top of the table. It should also be flush against the bottom of the Back Brace. See Figure 12.

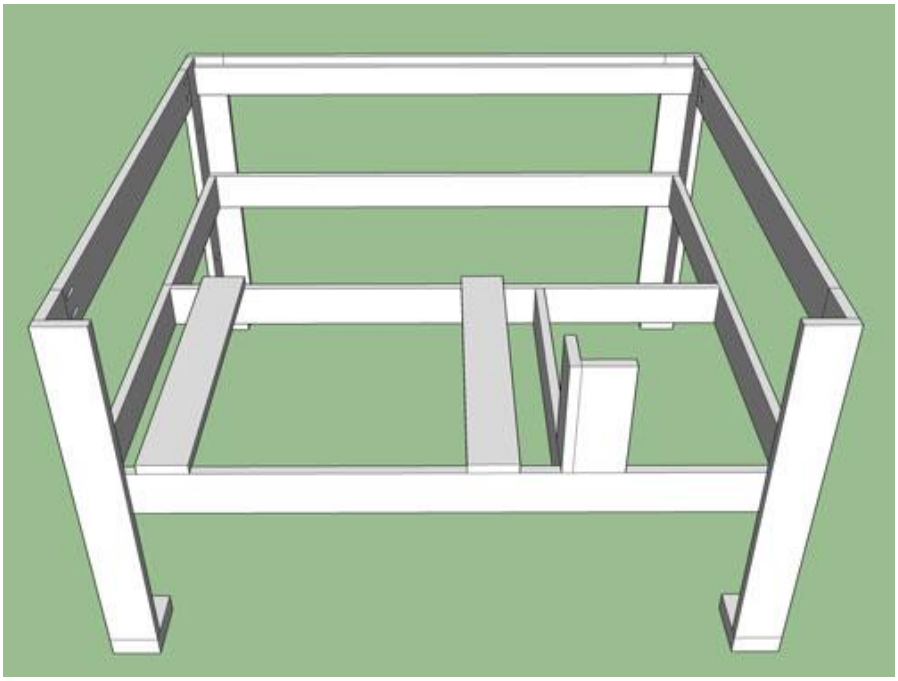

**Figure 12: Rear Top Frame Joists**

12. Next, install the 3 Rear Frame Ribs. Two of the Ribs will be glued and screwed into the Side Braces. The remaining Rib can be secured to the middle of the Rear Frame Joist using glue and pocket screws. See Figure 13.

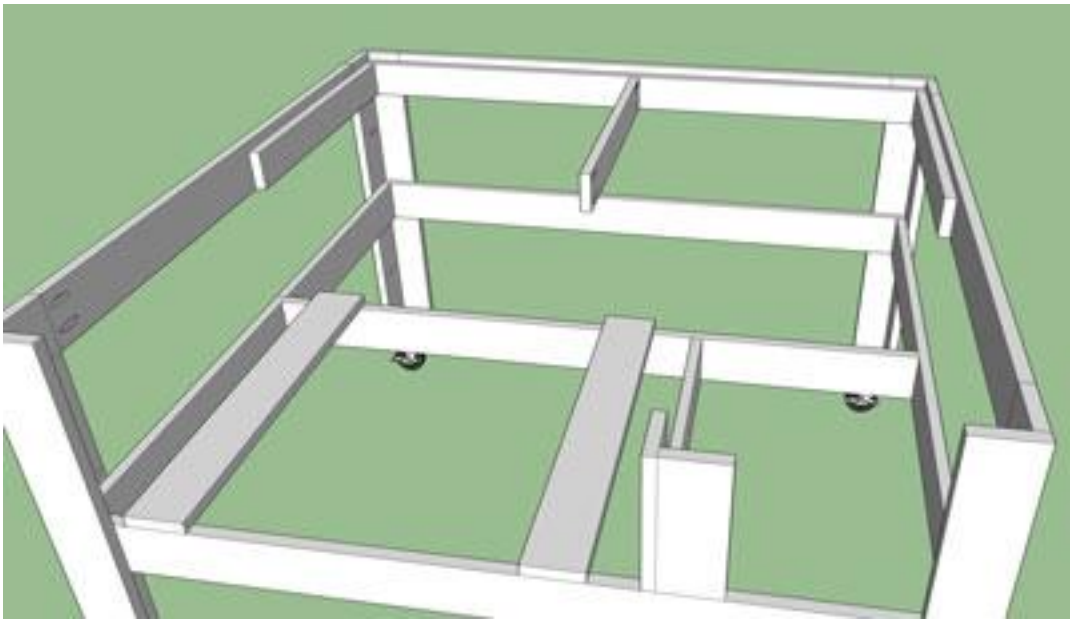

**Figure 13: Rear Top Frame Ribs**

13. Now install the remaining Rear Frame Joist to the 3 Rear Frame Ribs using glue, pocket screws and/or wood screws. See Figure 14. This completes assembly of the Rear Frame.

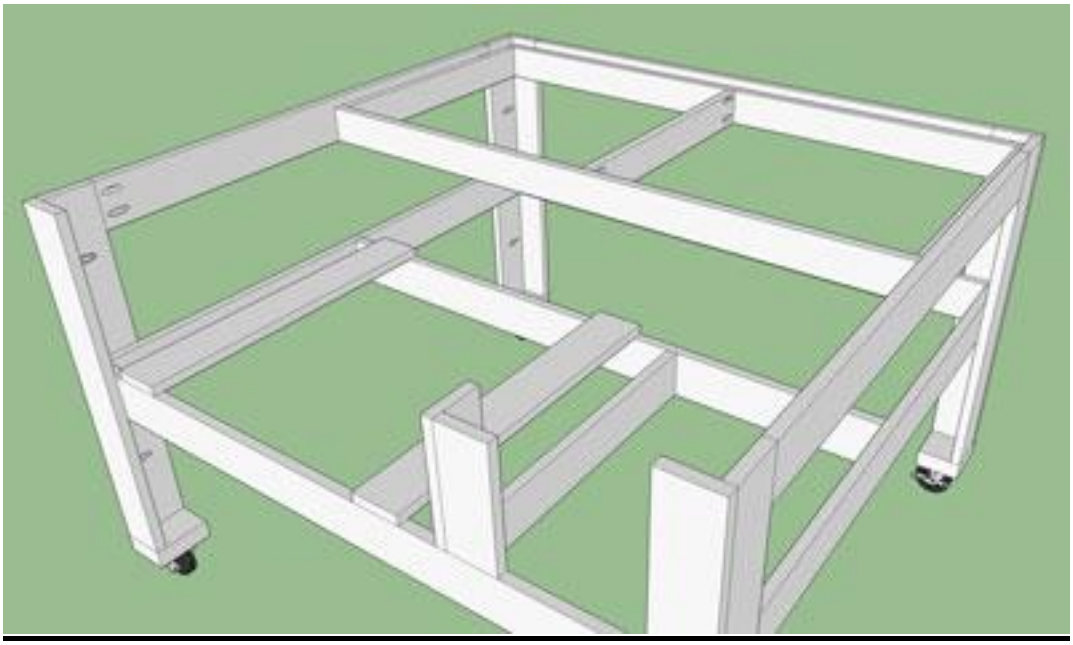

**Figure 13: Rear Top Frame Assembled**

14. Now we'll build the Front Frame. Start by installing one of the Top Frame Joists by using wood screws and glue. See Figure 14.

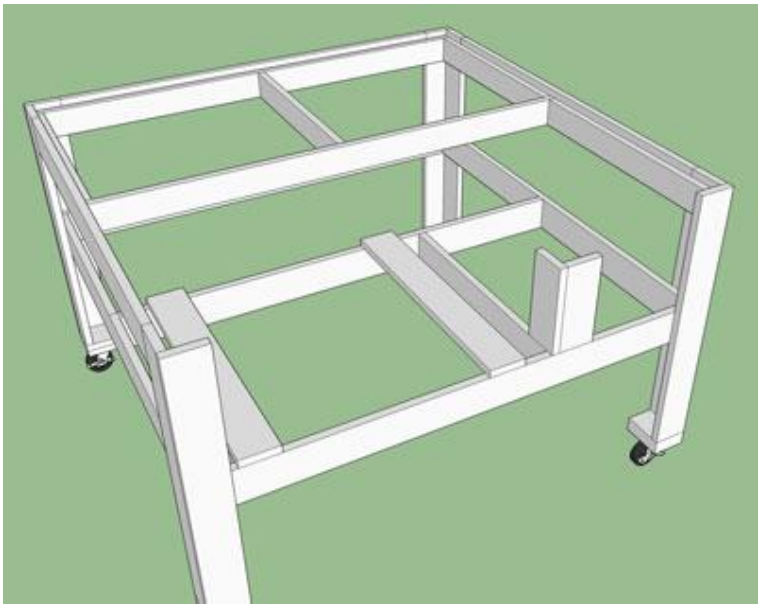

**Figure 14: Top Frame Joist**

15. Using glue, pocket screws and/or wood screws install the Top Frame Ribs. The Ribs should be attached to the Rear Frame Joist, the Vertical Supports and the Legs. See Figure 15.

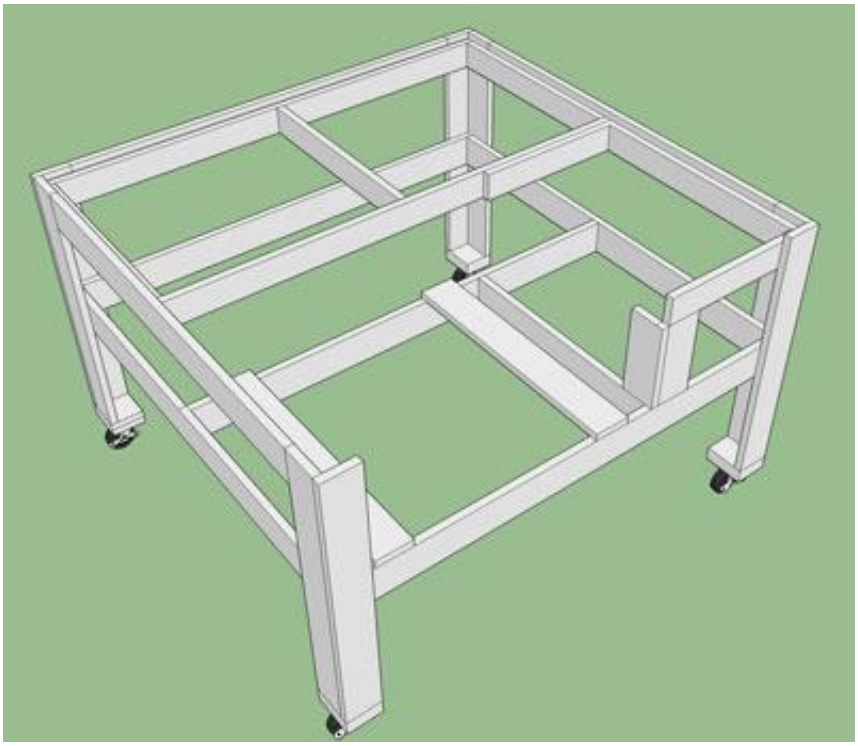

**Figure 15: Top Frame Joist**

16. With the Ribs installed, you can attach the second Front Frame Joist using wood screws and glue. Se Figure 16.

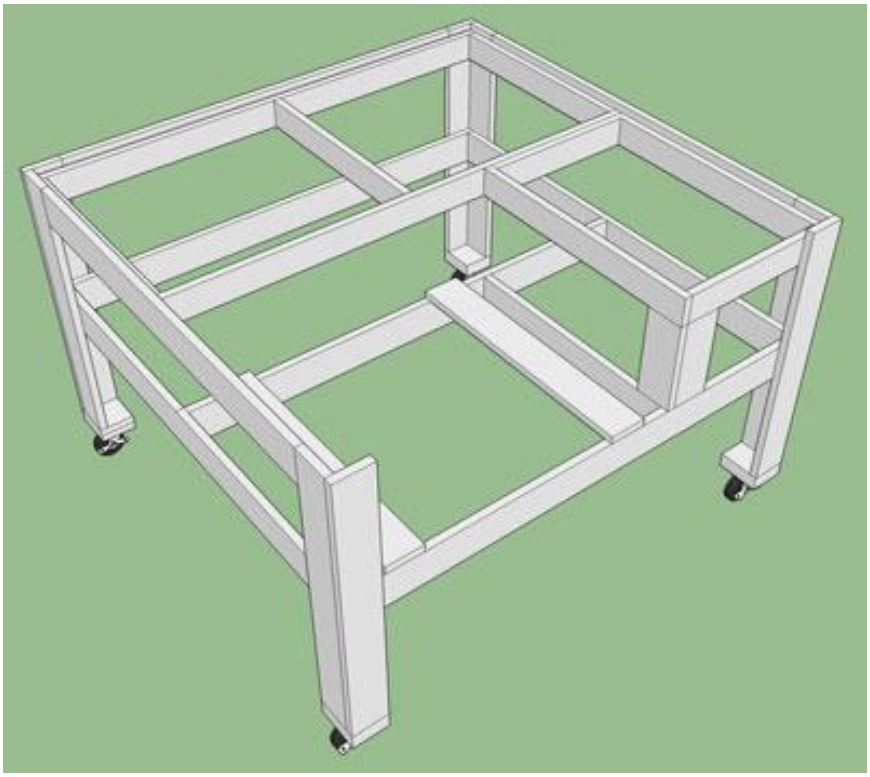

**Figure 16: Front Frame Assembled**

17. For the last piece of the frame, attach the Front Cover piece to the front frame so its edge is flush with the top of the front right Leg. Use glue and wood screws. See Figure 17. That completes the assembly of the structure.

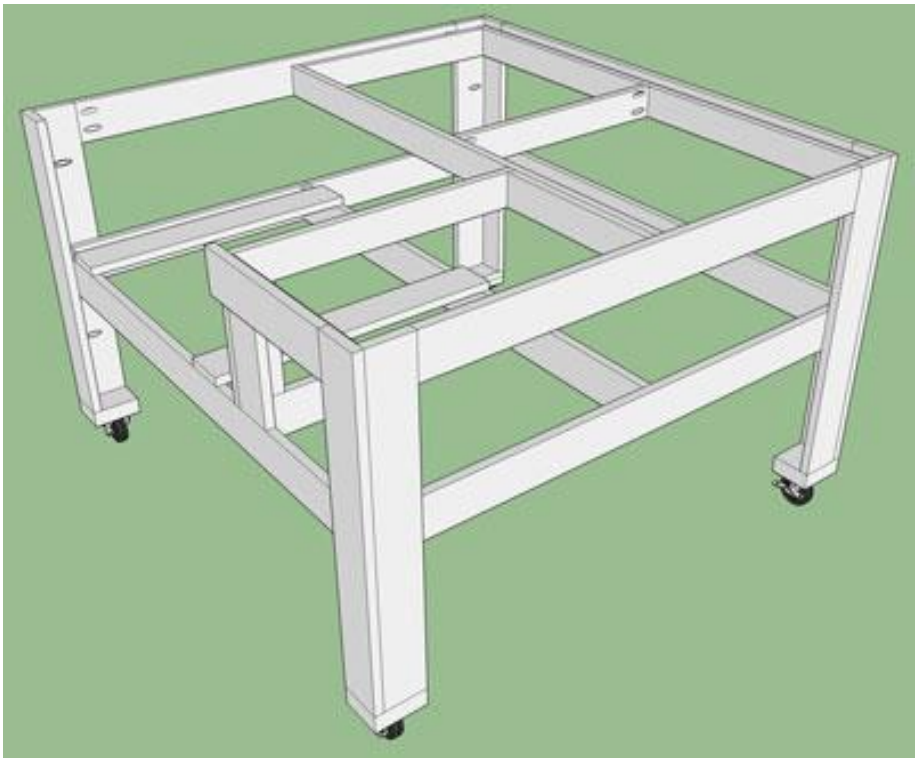

**Figure 17: Front Cover Added**

18. Now for the work surface. I used a large piece of melamine for this project, but you are welcome to use whatever material you prefer. Other options include MDF or birch plywood. To install the custom sized work surface, simply cut out a large piece of the material you picked to the dimensions listed in Table 4. Drop the cut out work surface onto the table. See Figure 18.

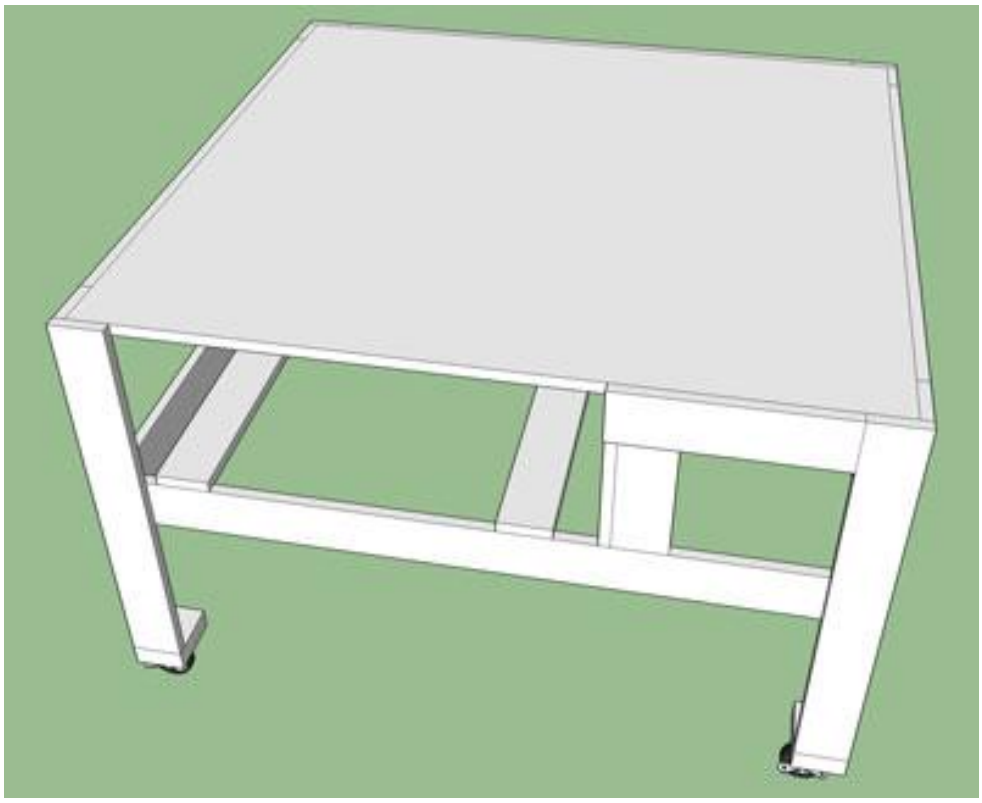

**Figure 18: Work Surface Pre-Cut**

19. Using a pencil, trace out the outline of the table saw opening from below. Use a circular saw to cut along the outline. Make sure the table saw fits into the opening before installing the work surface permanently using glue and pocket screws from below. See Figure 19.

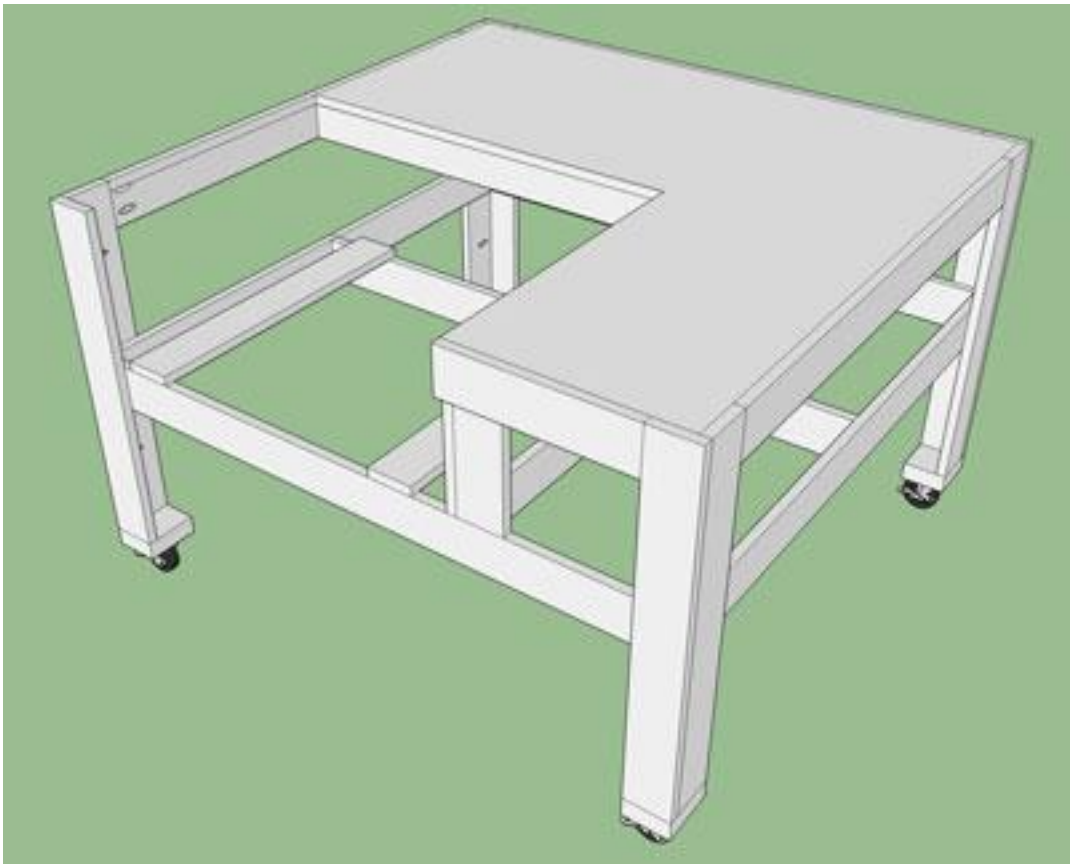

**Figure 19: Completed Table Saw Station**

20. The last thing you'll need to do is add the caster wheels and install your table saw. You can use washers to shim the table saw up if required. Don't forget, you still need a fence. Also consider building an outfeed table to the same height as this table saw station using our Workbench Plans (available on our plans page).

# Resources

This project appeared on our blog, Our Home from Scratch, over a series of blog posts. The design has undergone significant revisions compared to what appeared on the blog. The version featured in these plans is easier to build than the version described in the blog posts.

You are welcome to refer to those blog posts for reference if you wish, but keep in mind that these plans are the ultimate authority for the design and dimensions.

Post 1: Setting Up Shop: Table Saw Upgrade #1

Post 2: Setting Up Shop: Table Saw Upgrade #2

Post 3: Setting Up Shop: Table Saw Upgrade #3

That's it. If you find any errors, have any suggestions for improvement or any questions, drop me a line at John@ourhomefromscratch.com

Thanks!!