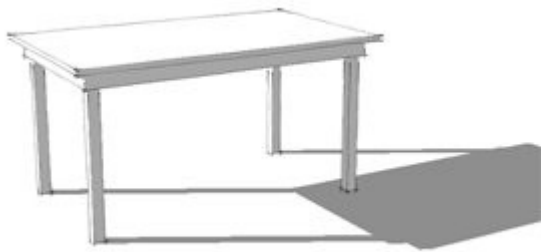


Sketchup Tutorial | 10 Steps to Create a Table In Sketchup

Matt Donley April 11, 2012

If you have no experience with Sketchup, this tutorial is right for you! I'll walk you through step by step on how to create a basic table using Sketchup.

This tutorial is using Sketchup Pro. You may be using Sketchup Make. Everything is the same except some tool icons may look slightly different but will do same thing.

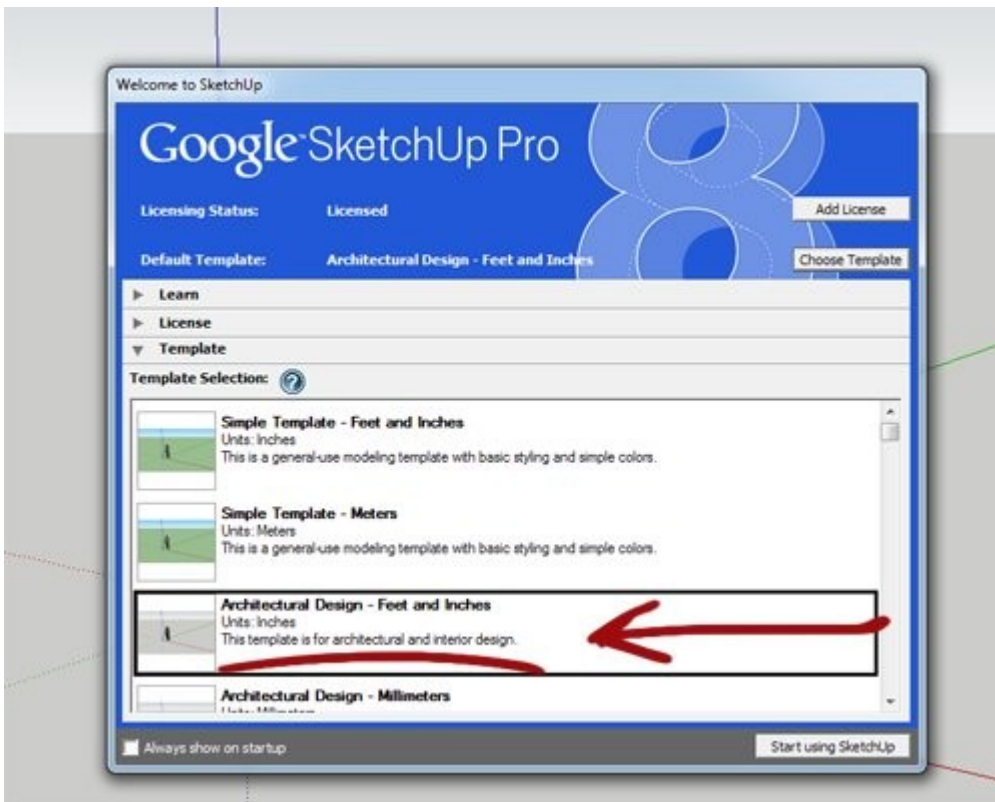


Getting Set Up

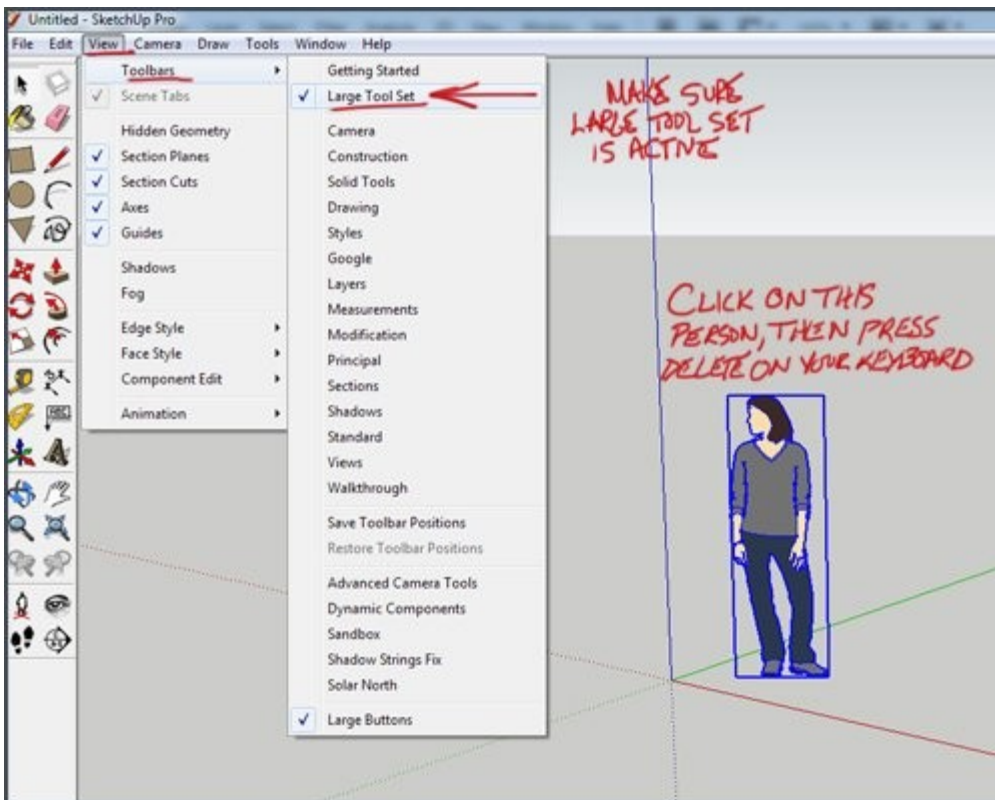
If you are prompted to choose a template when you start Sketchup, choose the “Architectural Design, Feet and Inches” to follow along with the tutorial, or chose your own template that you like.

For drawing furniture a good template is “Woodworking , Millimeters”.


The tutorial is in inches so if your using the “woodworking, millimeters” template you, of course, will need to know your project dimensions in millimeteres and enter them in the bottom right dimension space.

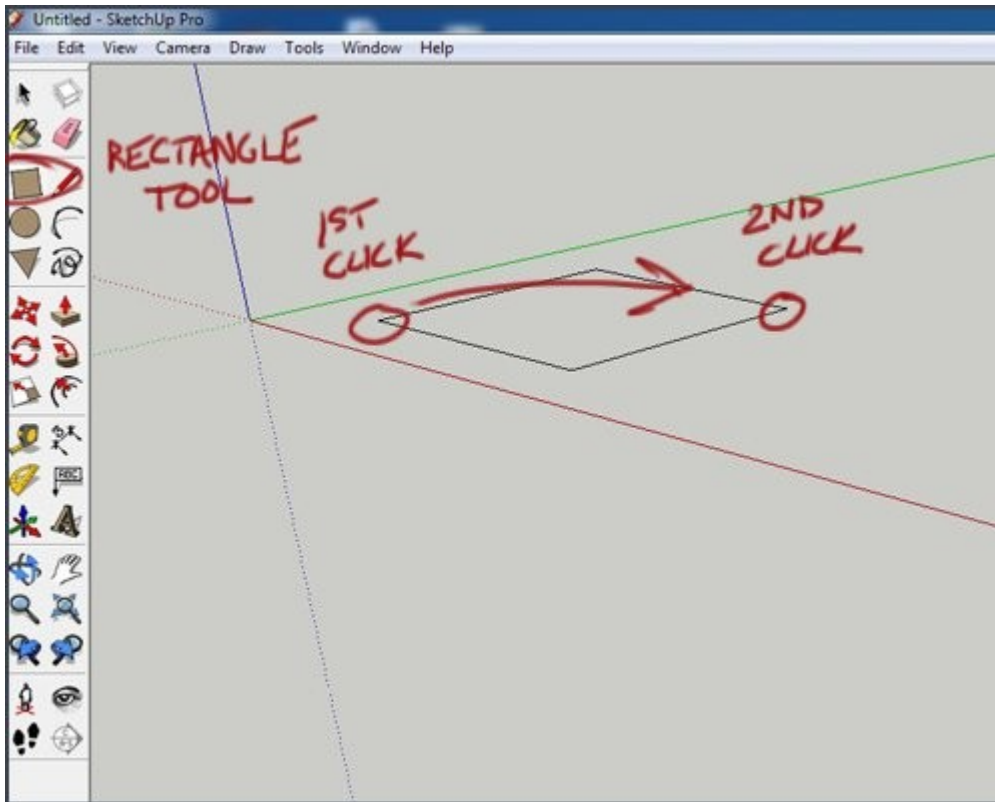


Once you have chosen a template and are at the main workspace, make sure you have the “Large Tool Set” active by going to the View menu → Toolbars → and selecting “Large Tool Set”.



Step 1 – Draw a Rectangle

To begin drawing your table, you'll need to select the Rectangle Tool  (R). Click once to start drawing the rectangle, drag your mouse out, then click a second time to complete the rectangle.



Step 2 – Specify Dimensions

Immediately after drawing something, you have the opportunity to type in the actual dimensions you want on your keyboard. There's no time limit or anything, you can take as long as you want. You just want to make sure you type them in before you click on anything else, or you'll lose your opportunity to specify. Type dimensions using the following format, then press enter on your keyboard:



Dimensions 3',5'

If you look down at the box in the lower right corner of the Sketchup window, you'll see the place where your dimensions show up.

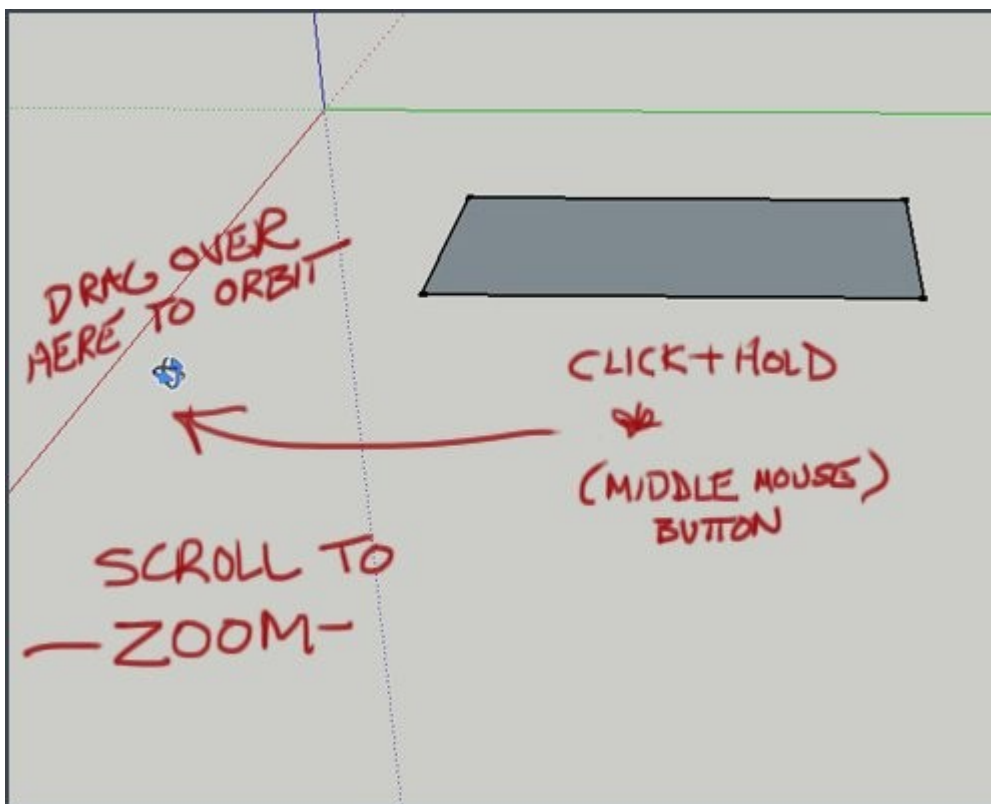
Tip: You can format your dimensions any way you want. The following dimensions would all do the same thing. (3',5') (36",5') (36", 60") (1' 24", 4' 12") Sketchup will automatically

do the conversion for you. You can type in different units of measurement too, even if your template has been set up with a different default unit.

Step 3 – Navigation

Once you create a basic shape, you'll want to navigate around your model to get different perspective views. Use your middle mouse button to activate the Orbit  and Zoom  Tools.

You can do this at any time while modeling, even if you are in the middle of using another tool. You don't need to switch tools to navigate, just **click and hold** the middle scroll wheel button to orbit. You can also use the scroll wheel to zoom in and out.



These are your basic navigation tools. You will be using these all of the time, so practice orbiting around and zooming in and out.

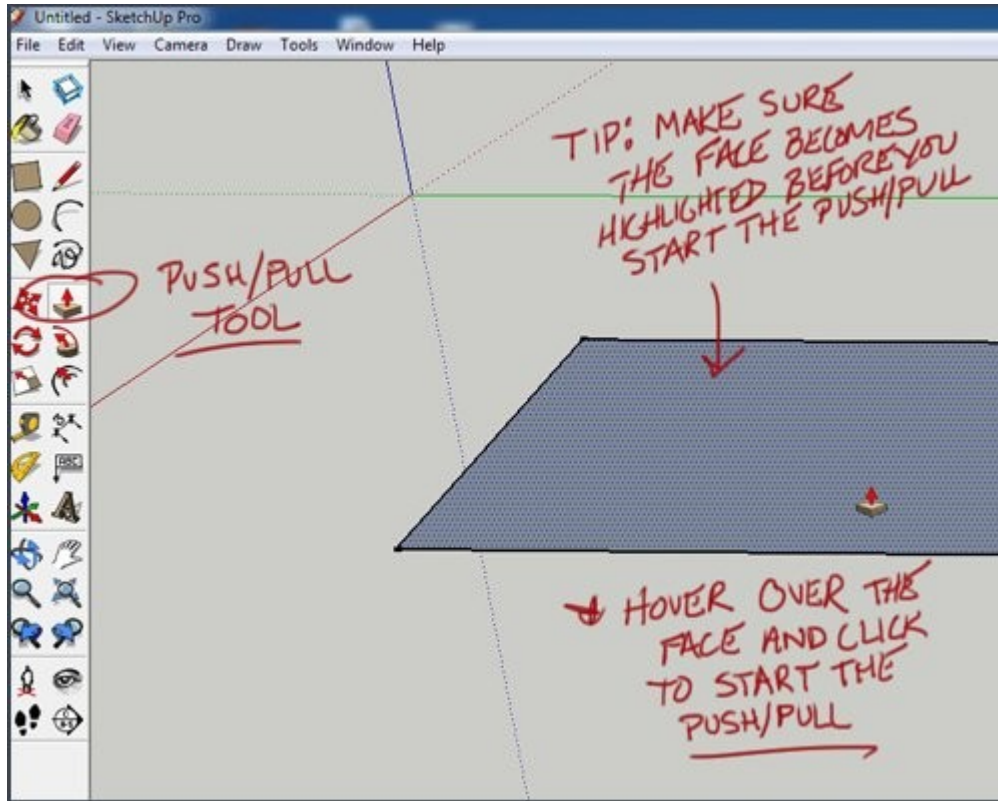
Step 4 – Create 3D Object with Push/Pull Tool

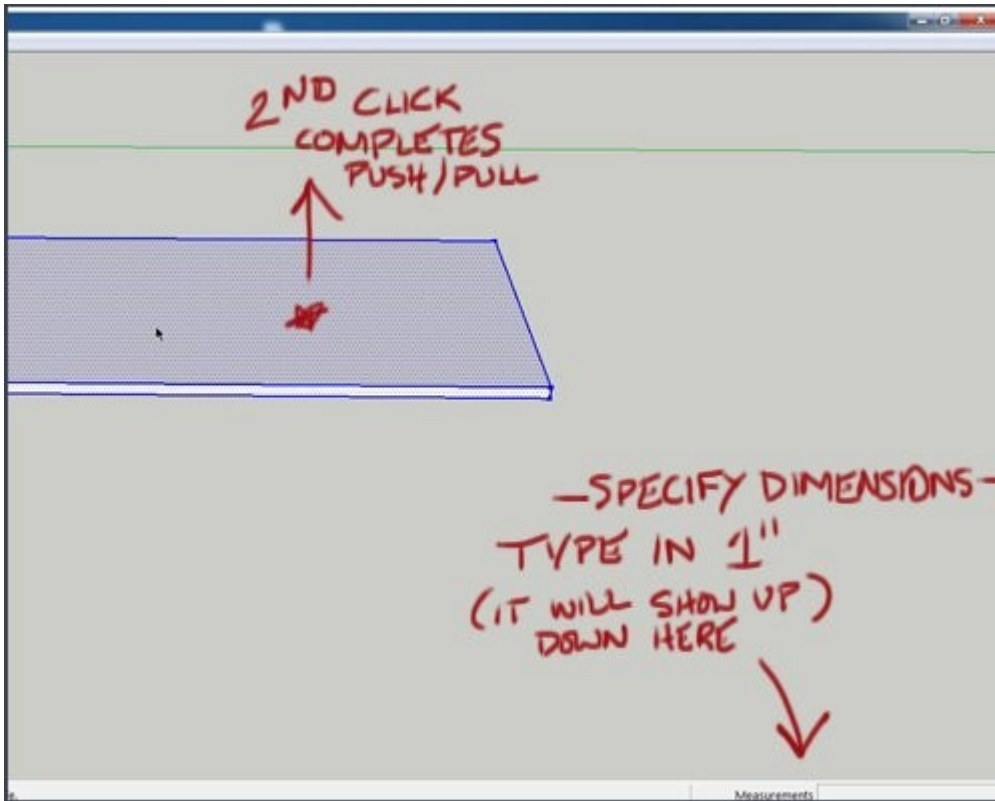
The rectangle tool has created a flat, single faced rectangle. In order to create a 3D object, we can use the push/pull tool to extrude the face of the rectangle to create a box.

Activate the Push/Pull Tool  (P), then hover over the face of the rectangle. Notice how the face

becomes highlighted in blue. This indicates that if you initiate the push/pull, the highlighted face will be extruded.

Sometimes if another face is preselected, the face you hover over won't automatically become highlighted. So make sure you are aware of which face is highlighted before you start the tool.






To start the push/pull, click once, drag up, and click again. Once the pull is complete, specify the height at 1" by typing it into your keyboard and pressing enter.

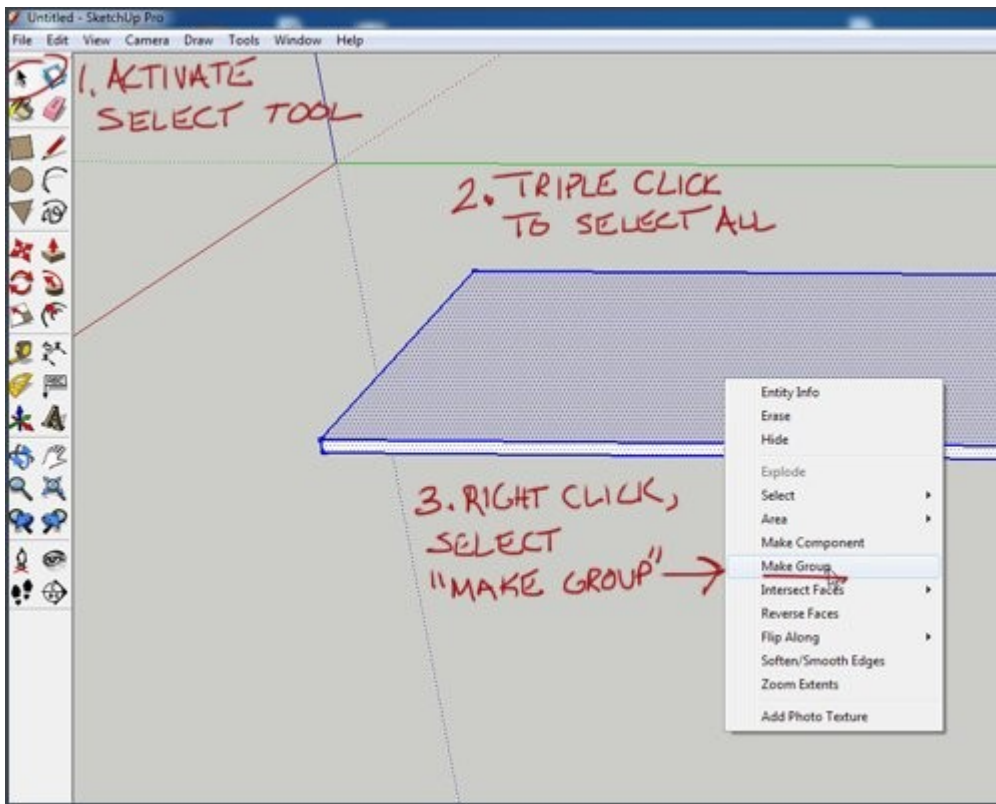
Notice how the VCB (Value Control Box) will accept a different value format, depending on which tool you just used. In this case, we can only specify one length, so we type in one dimension. When we had created the rectangle, we were able to type in two dimensions, separated by a comma, to specify the length and width.

Step 5 – Create a Group

As soon as you've created a basic shape in Sketchup, it's a good idea to turn it into a group or component to isolate it from the rest of your model. It will help keep you organized, and will prevent things from accidentally being affected by connected entities.

In order to create a group, you need to select two or more entities (faces, or edges). After all, you can't have a group of something if there are only one of them, right? One way to select a group of entities that share connecting geometry is to **triple click on it** with the Select Tool  (**Spacebar**). Doing so will highlight it in blue.


Then, right click it, and select "Make Group".



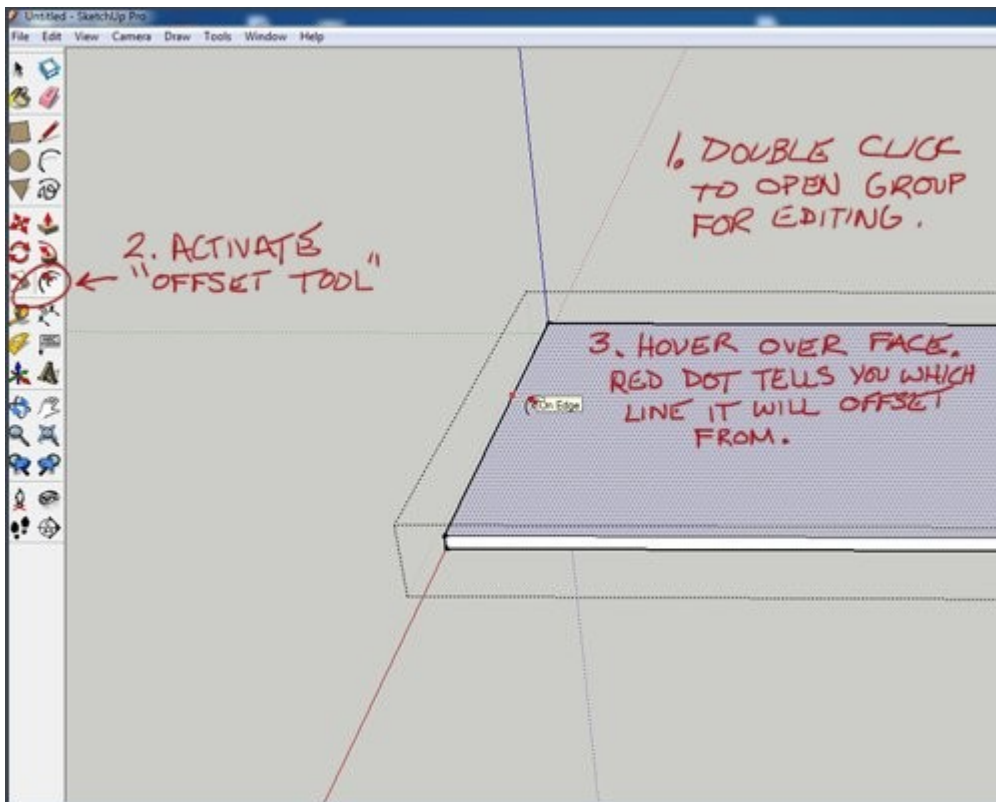
Step 6 – Offset to Create Apron

Once you've created a group, you need to double click it in order to open it for editing. You'll see a dotted box around it to let you know it is active. When you have a group open for editing, anything you draw will be contained within it. You won't be able to affect anything that is outside of that group unless you close it by selecting something outside of it.

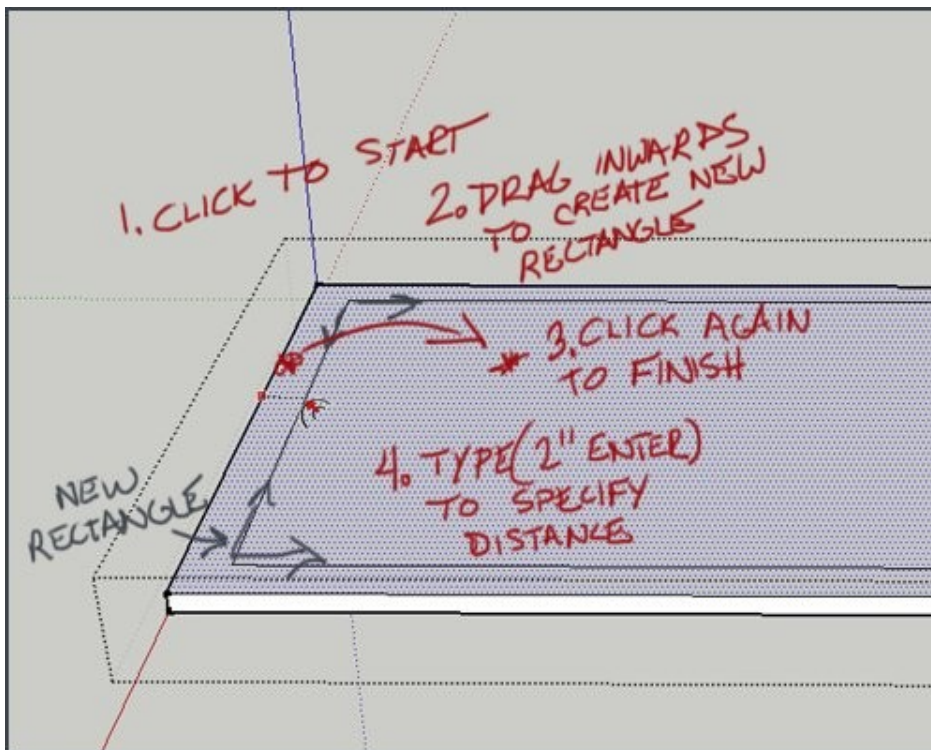
Note: We are building the table upside down for now, and will flip it over once we are done.

With the group now open for editing, let's switch to the Offset Tool  (F) and create another rectangle for our apron. The Offset Tool creates a shape by copying the outline of an existing set of connected lines, and scaling them to a specified dimension.

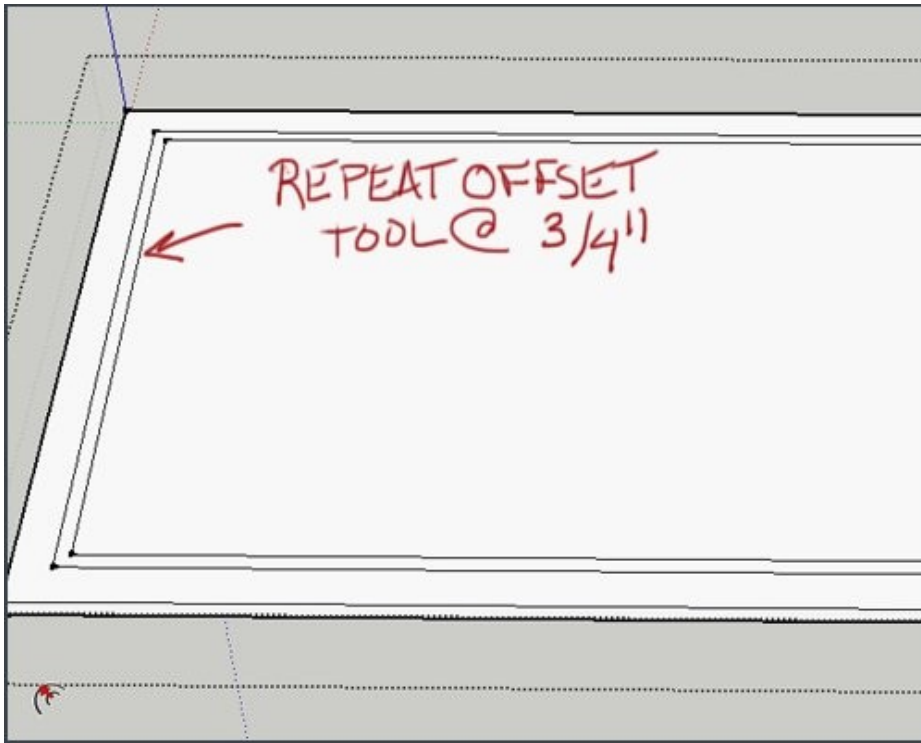
To start the Offset Tool, hover over the face you want the Offset tool to draw on until it is highlighted and you see the red dot on the line you want to Offset from.



Then, click once to start the offset and drag inwards about 2", and click again to finish. Type in 2" on your keyboard and press enter to specify an absolute distance.

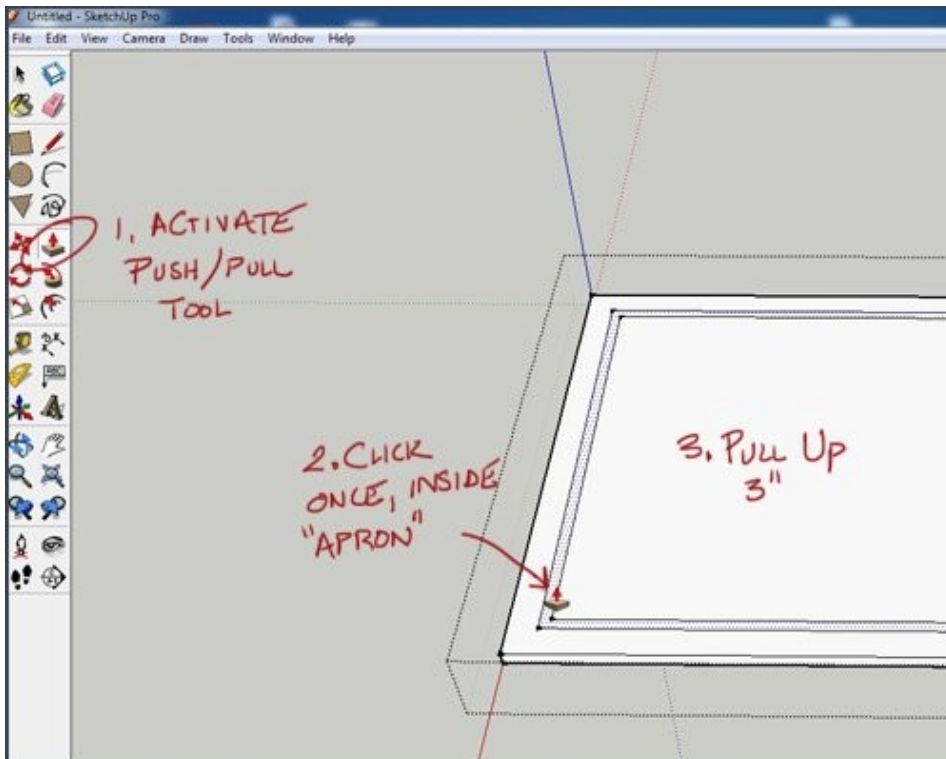



Use the Offset Tool again to create another rectangle inside the one we just made. This time, offset it 3/4".

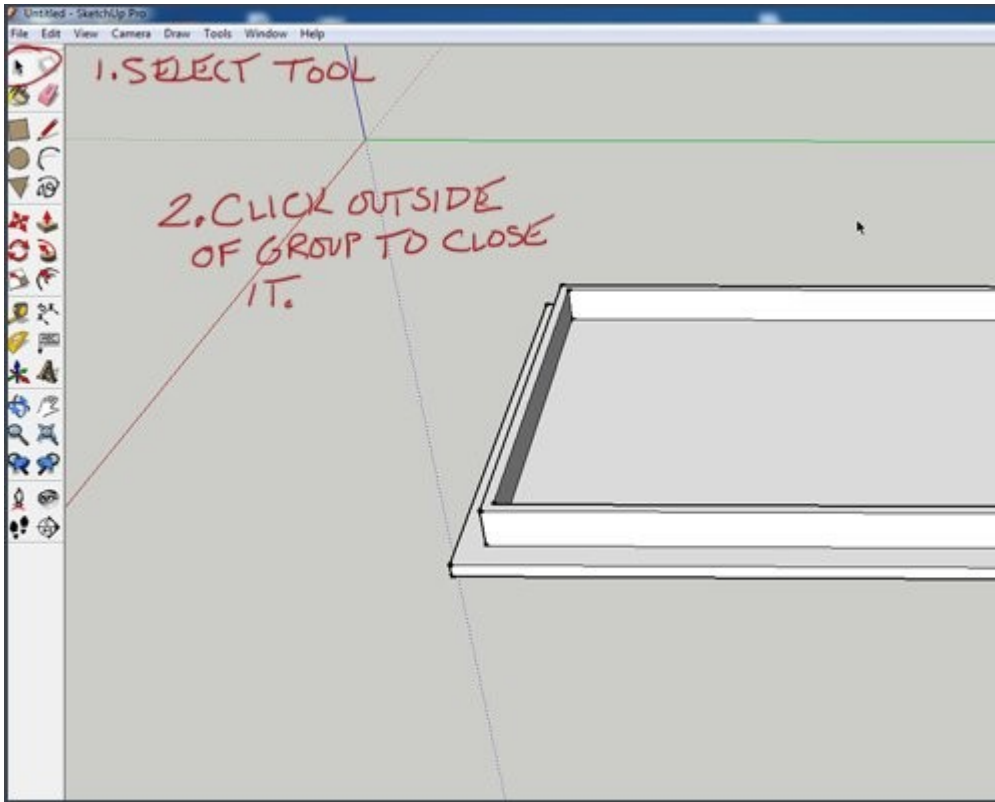


Step 7 – Push/Pull the Apron

Next, activate the Push/Pull Tool  again and pull the apron up by 3"




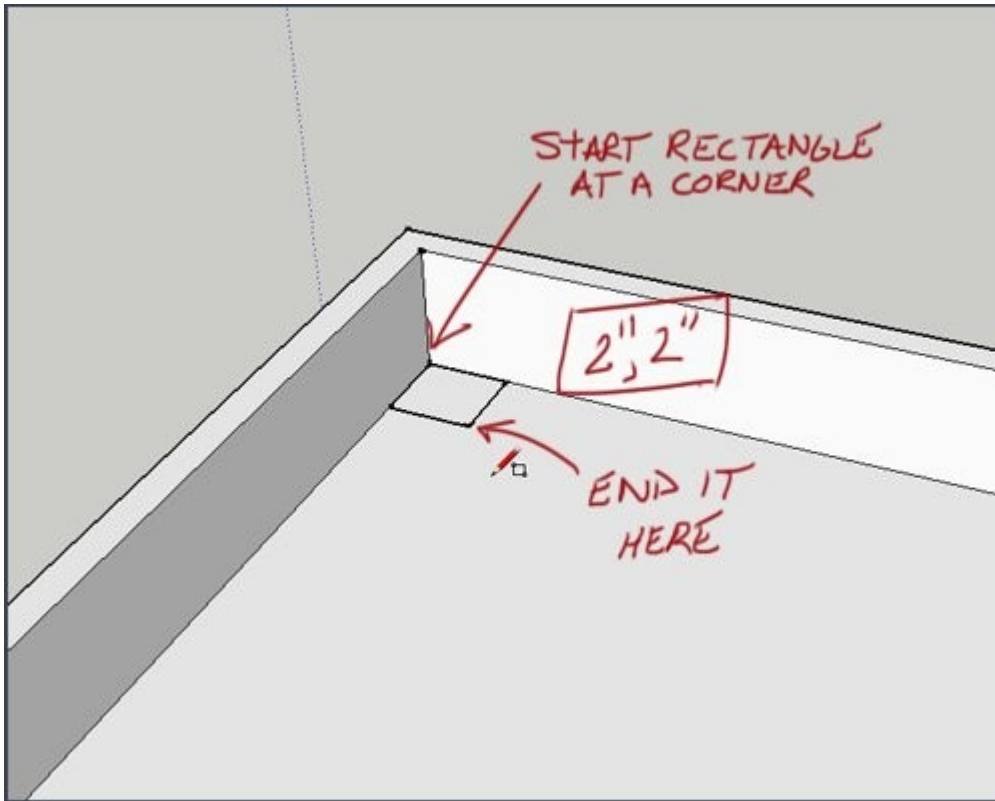
Once you've completed the apron, close the group by clicking anywhere outside of the group with the Select Tool  (**Spacebar**). You'll know it is closed because the dotted line around the group will disappear.




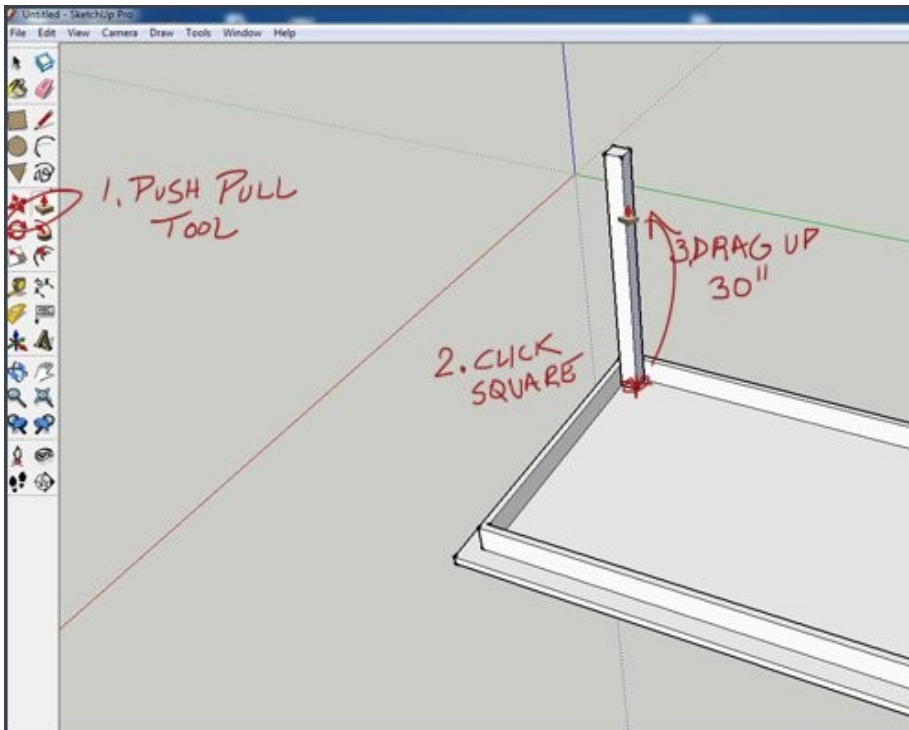
Step 8 – Create a Leg Component


Because all of the legs for this table will be identical, we will create one as a component, then copy it for each leg. By using a component instead of a group, changes made to one instance of that component will be reflected on all of the components of that type in the entire model. So if we decide to change the height of the table legs, we only have to edit one, instead of all four.

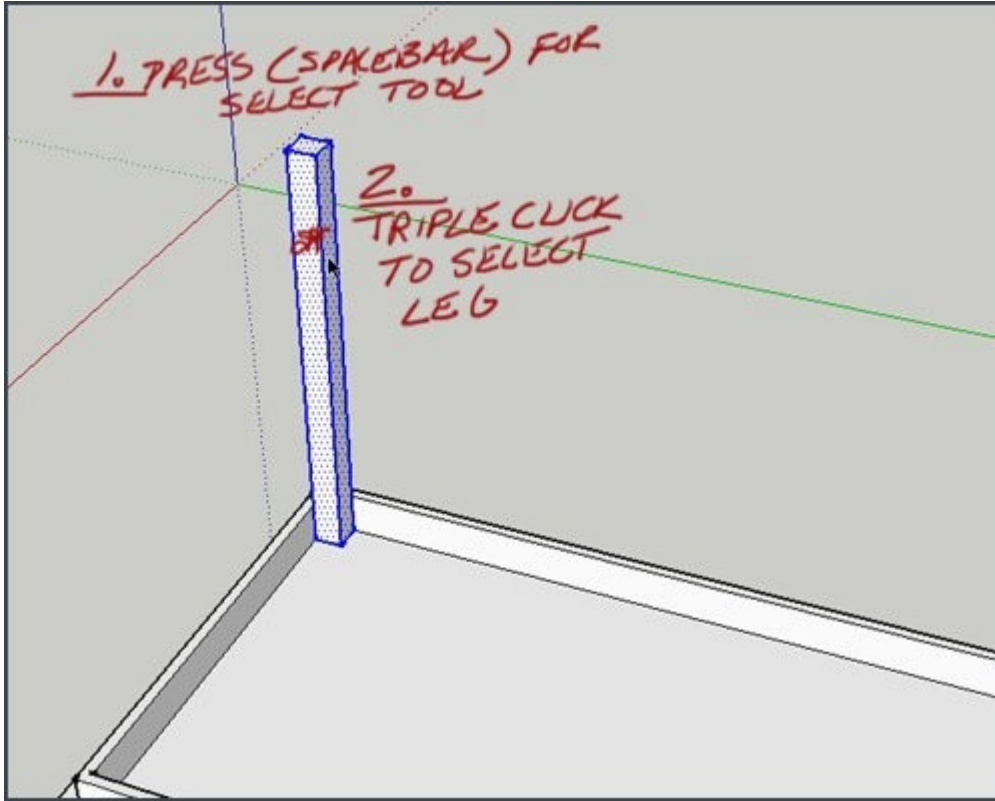
Start the table leg by creating a 2",2" square using the rectangle tool  (**R**). Zoom in to an inside corner of your table apron and reference the corner point to start the rectangle tool.



Use the Push/Pull Tool  (**P**) to pull the square you just made to 30".

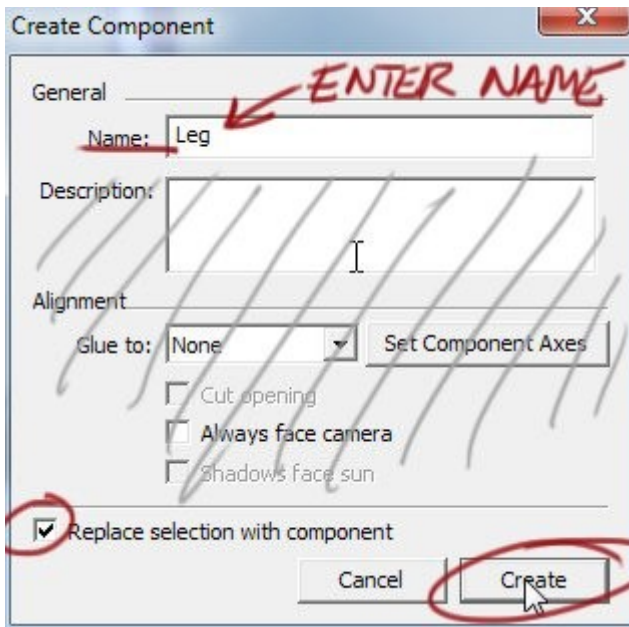


Select the leg you just made with the Select Tool  (**Spacebar**) by **triple clicking it**. The table leg should highlight blue. Notice how the table top does not get selected even though it is touching the leg. That is because it is isolated on another group. It is therefore protected from any changes made outside of that group and does not “stick” to the table leg.




Right click, and select “Make Component.”

When the “Create Component” Window pops up, all you have to worry about is entering a name, make sure “Replace selection with component” is checked, and click “Create”. Everything else you can ignore for now.

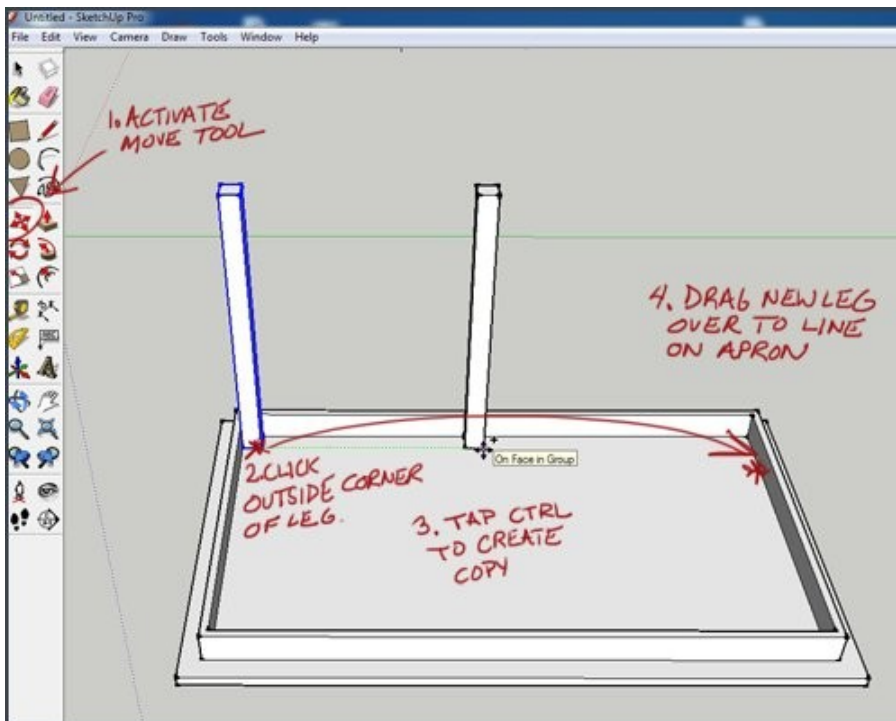



Step 9 – Copy Leg

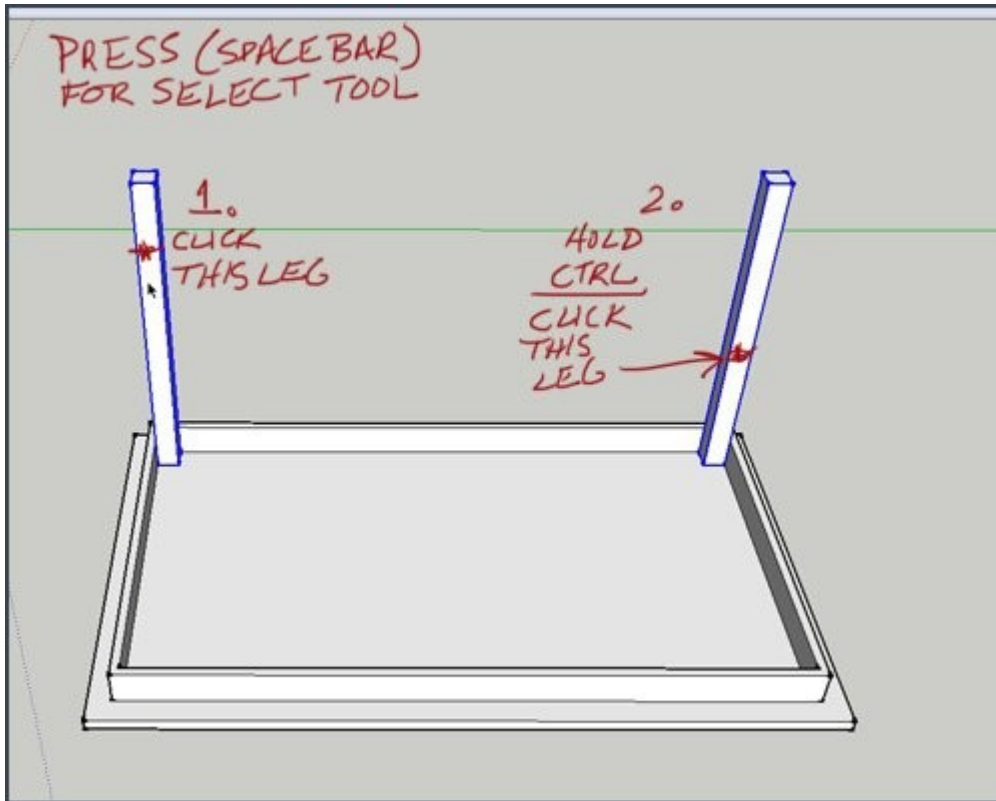
Now that we have the leg component made, all we have to do is copy it to each corner of the table.


Activate the Move Tool  (M), and click the outside corner of the leg to start the move. Tap (CTRL) to tell Sketchup that you want to create a copy, instead of moving the original component.

Drag the copy over to the other side of the table until you snap to the line at the apron.

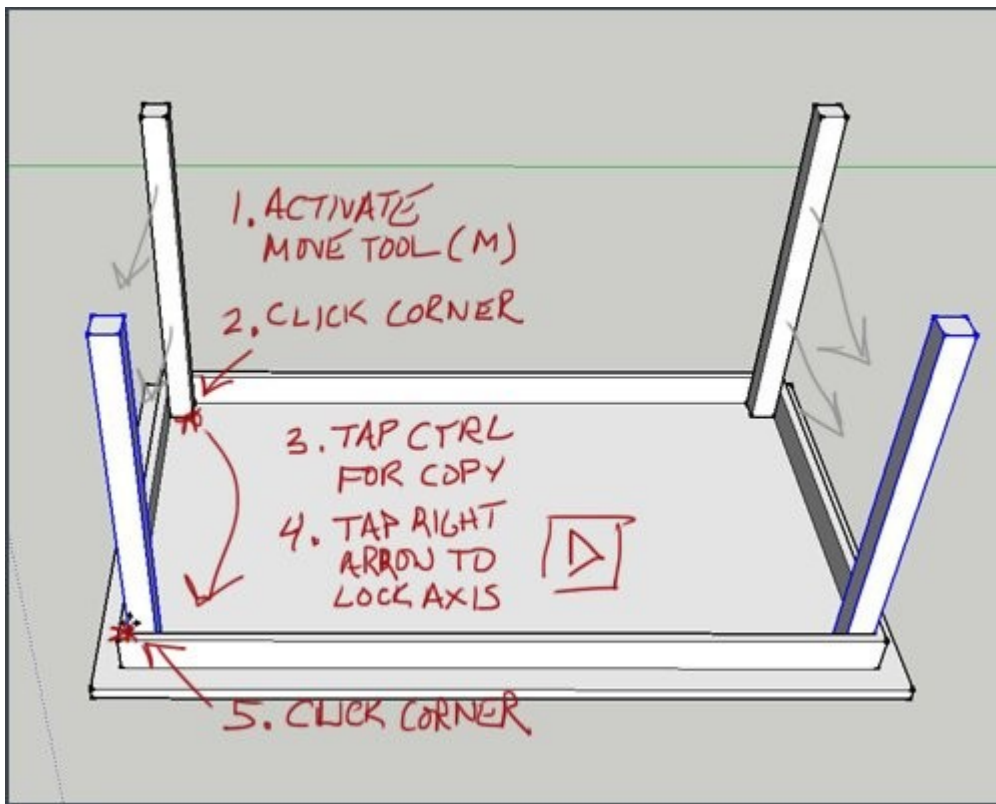


Next, Select both legs at the same time with the Select tool  (**Spacebar**). Click one leg to select it, then **HOLD down the (CTRL)** key while you click the other leg. This will select both legs at the same time.



Grab the Move Tool  (**M**) again, and click the same corner on the first leg to start the move. Tap **(CTRL)** to start a copy.

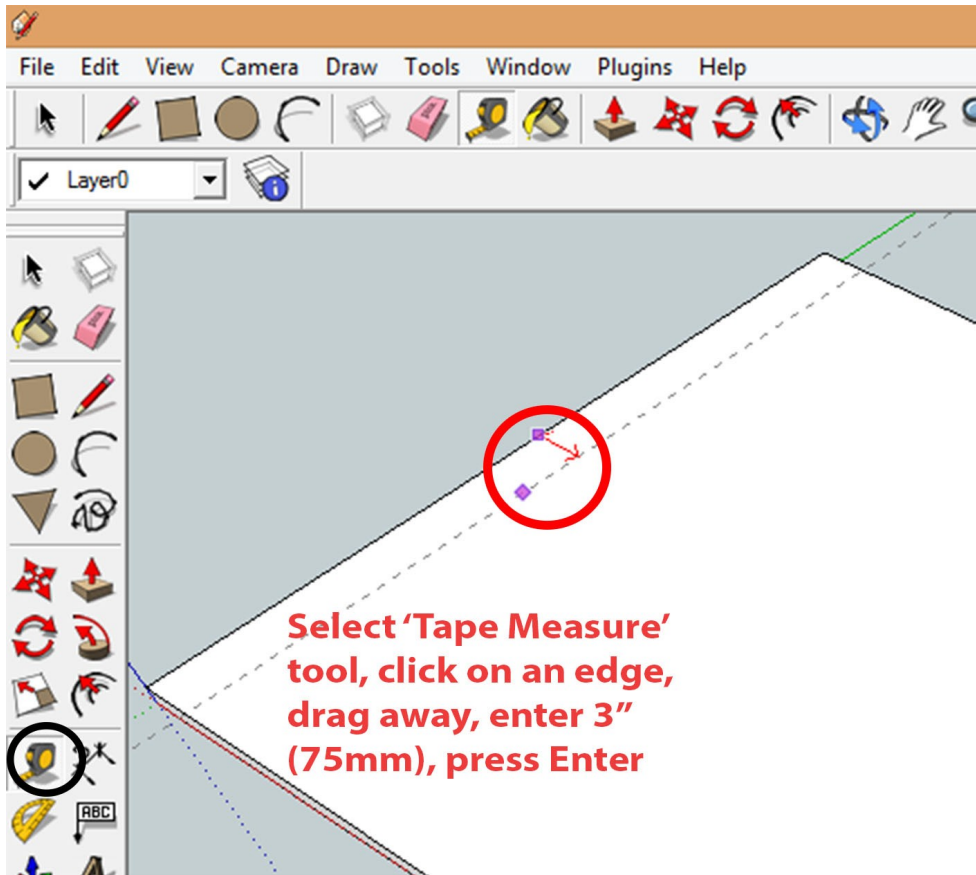
This time, tap the (Right Arrow Key) on your keyboard to lock into the Red axis. Now, you can reference any point in plane with the distance you want to copy the legs to. Click on the upper inside corner of the apron, and you are done.



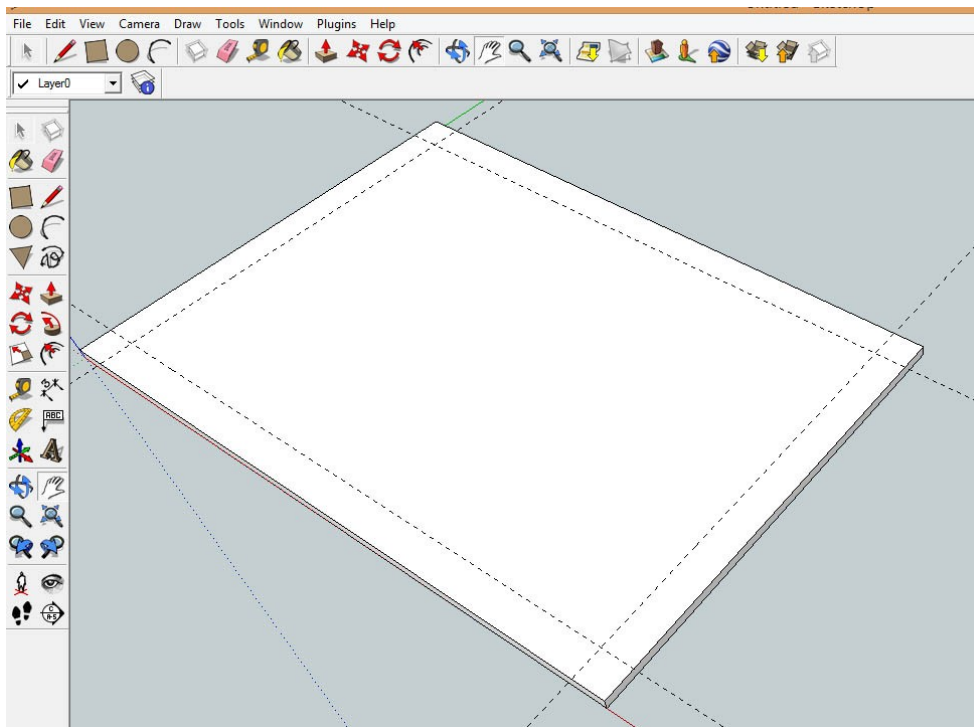
Another method the making Legs and Aprons

A great tool to help place objects in the correct position is the 'Tape Measure' tool. Use it to show dashed guidelines.

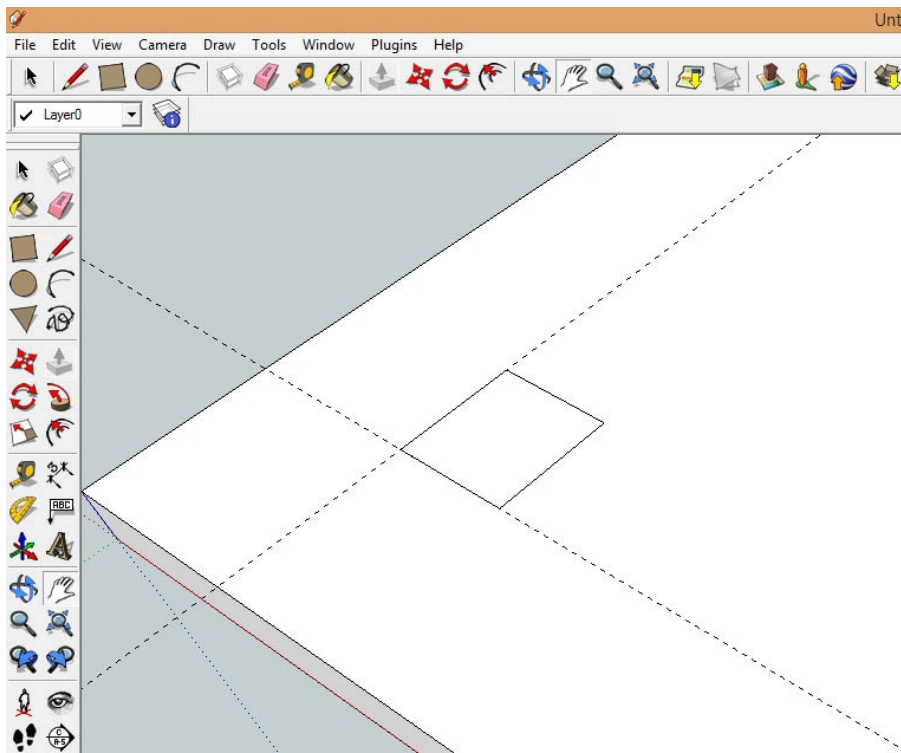
We can use this method for placing the aprons between the legs (as you did for your Plant Table project)



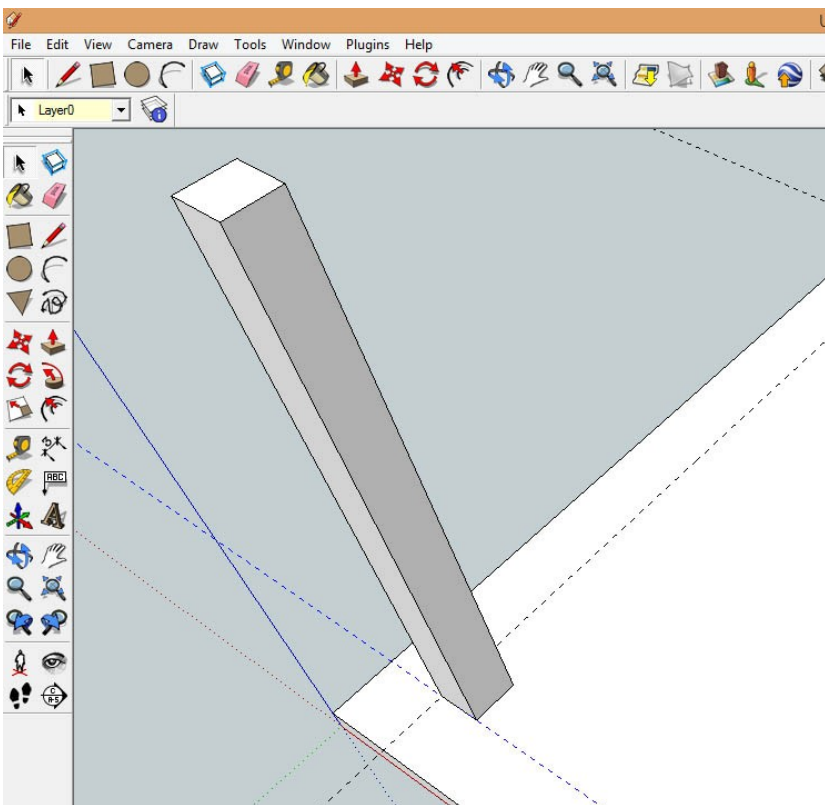
Repeat this procedure for each side



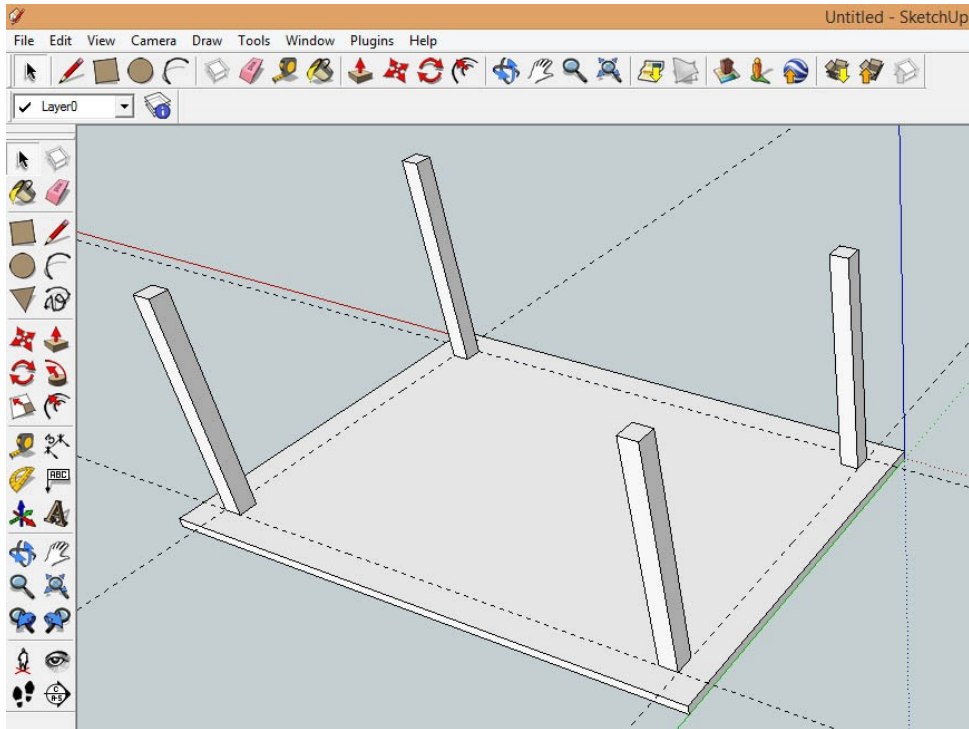
Now draw a square for the leg. I used a leg 2" (50mm) square.



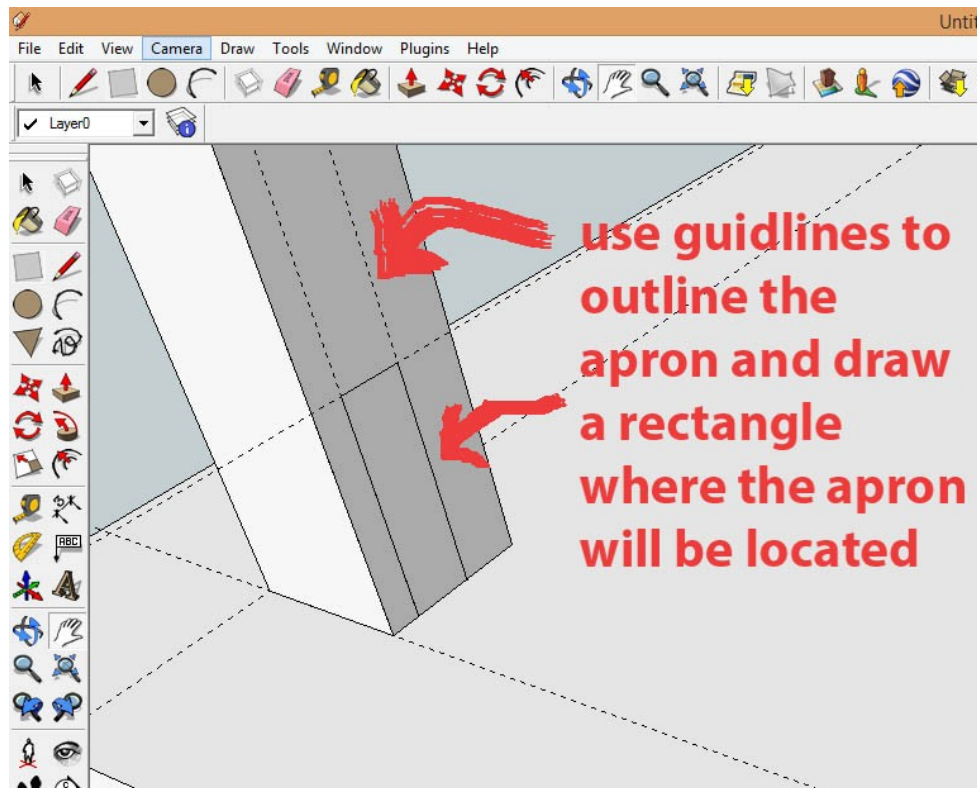
Now use the 'Pull' tool to extrude your legs up to their required height.



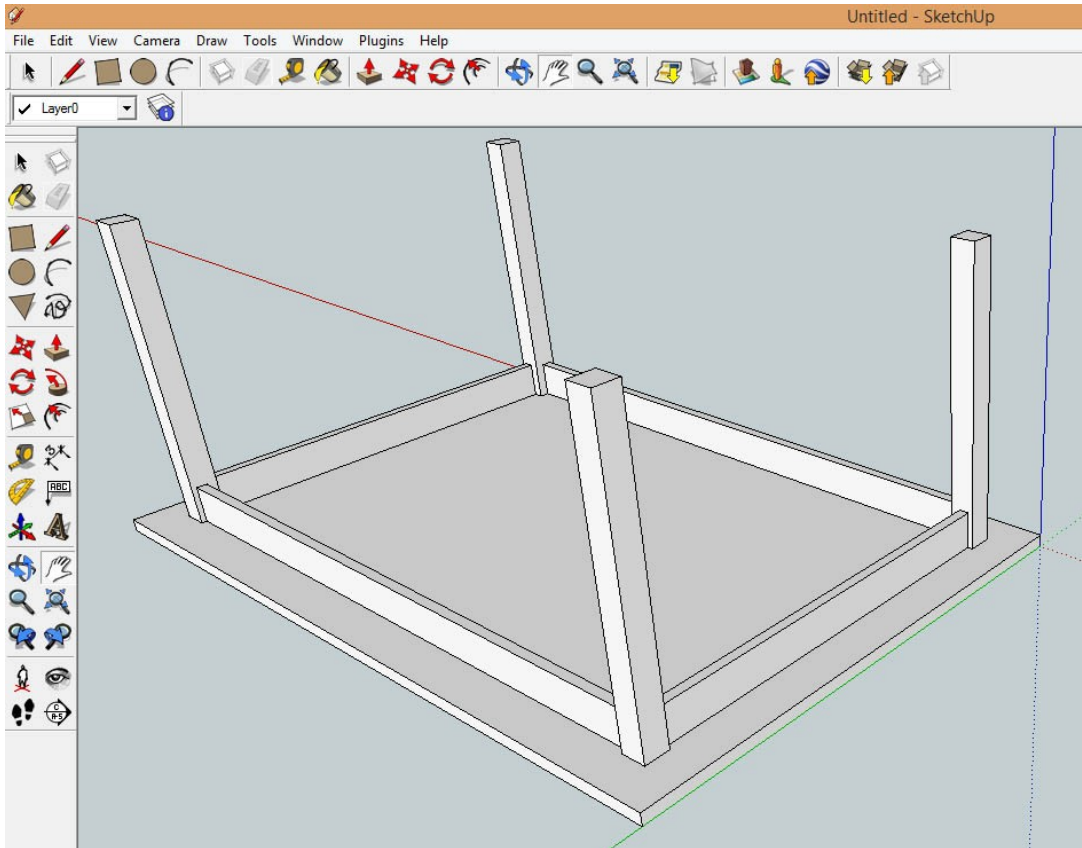
Make the leg a Group, and copy/move ('Move' tool with 'ctrl' button pressed) to copy the leg to the other 3 corners. Remember to move from the point that will go to the intersection of the guidelines.



Now use guidelines on the side of a leg to mark where you want the apron to be attached to the leg. Use the 'Rectangle' tool to trace the rectangle made by the guidelines.




Use the 'Pull' tool to extrude the rectangle to the other leg. Repeat this guidelines. Rectangle, Pull process for the remaining 3 aprons.




Step 10 – Group and Rotate

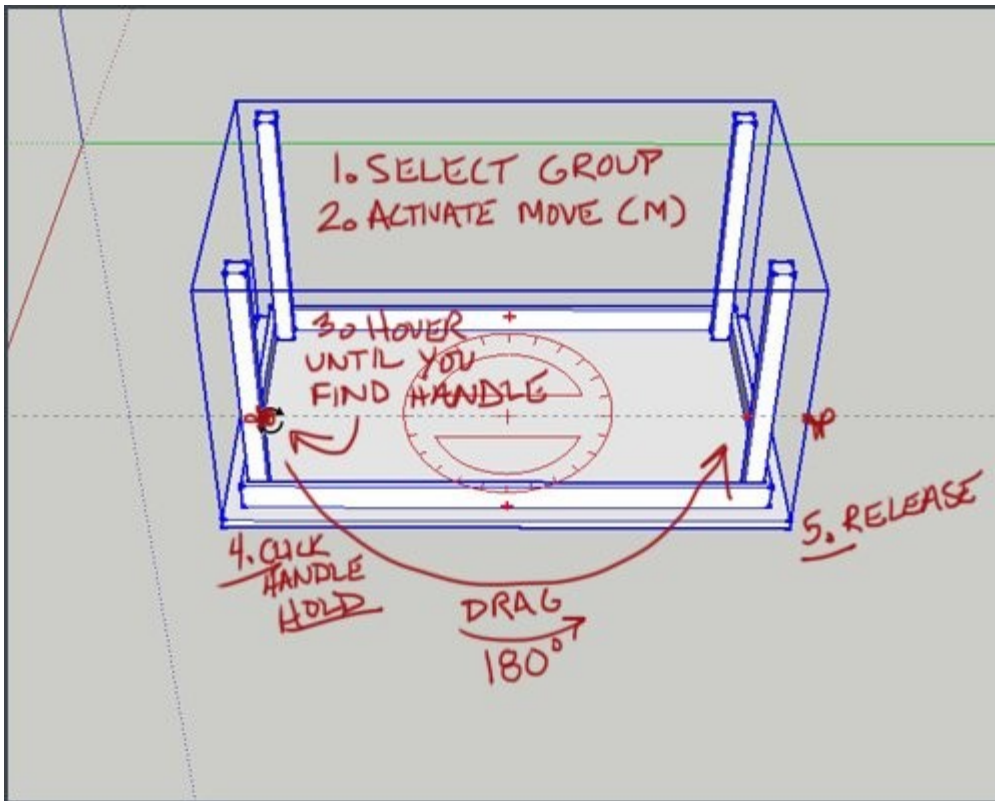
Whenever you create an assembly like this, it is always a good idea to select all the parts of the assembly and group them together. This will allow you to move all the parts of the table as an assembly, instead of having to select each part of the table individually.

You can also decide if you want to create a group or component. If you plan on creating multiple copies of the same table, you should use a component. Otherwise, a group will do just fine.

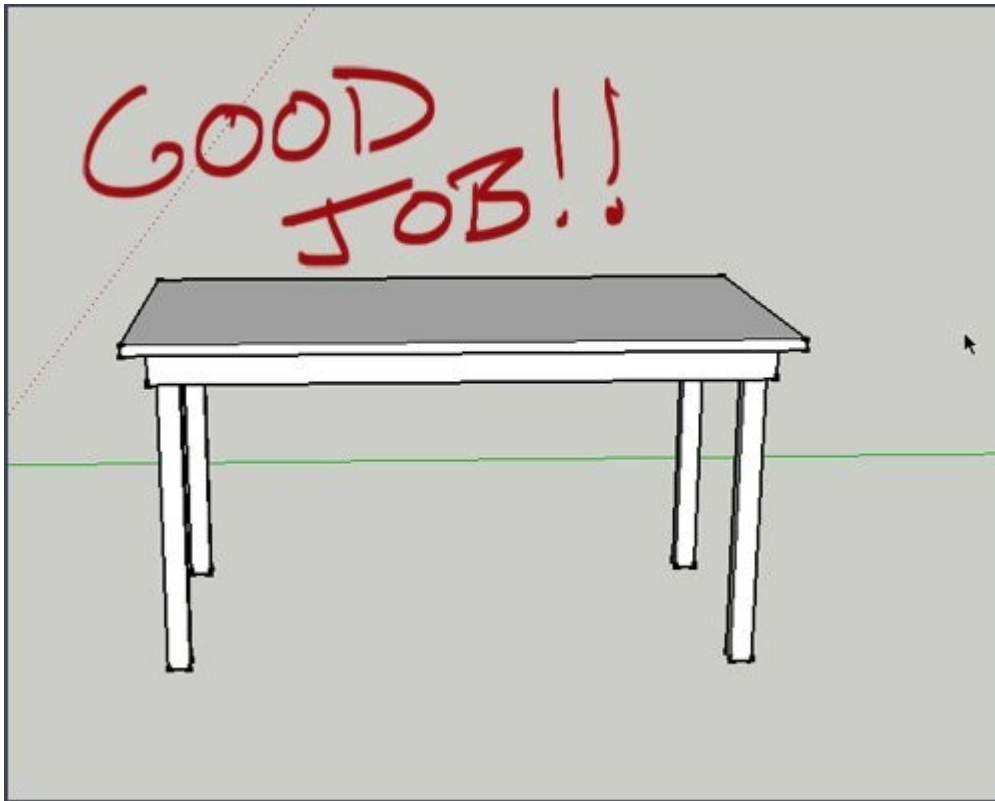
Another way to select multiple objects, is to click and hold down the left mouse button while dragging a bounding box around the items you wish to select. Activate the Select Tool  (**Spacebar**), and select all the parts of the table.

Make a group out of the table, and rotate it right side up.

Select the table, and activate the Move Tool  (**M**). Then, hover over the new group until you see little red handles pop up. These handles are a quick shortcut to help you rotate the model while using the Move Tool. Just click and hold on one of these handles, and spin the model around 180°.



Congratulations, you've just created a table!



Try something else

If you were able to complete this model without much trouble, you are definitely ready to start creating your own models. By using the basic skills you learned here, you can apply them in other models.

Some key things to remember are:

- **Tip:** Always use Groups to organize your model.
- **Tip:** Be aware of which group you are currently working in.
- **Tip:** Use Keyboard shortcuts to switch tools easily

Good luck, and keep Sketching!

See this quick tutorial for getting images out of Sketchup into your tutorial