

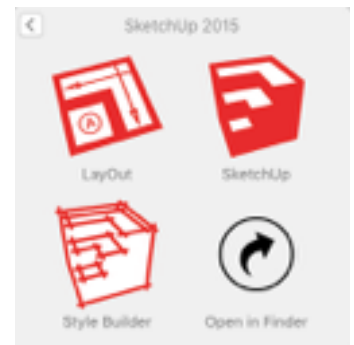
3D Design and Printing Basics

For this demo, we will be using Google SketchUp for 3D design. There are other programs that perform the same functions, but we chose SketchUp for simplicity.



<http://www.underconsideration.com>

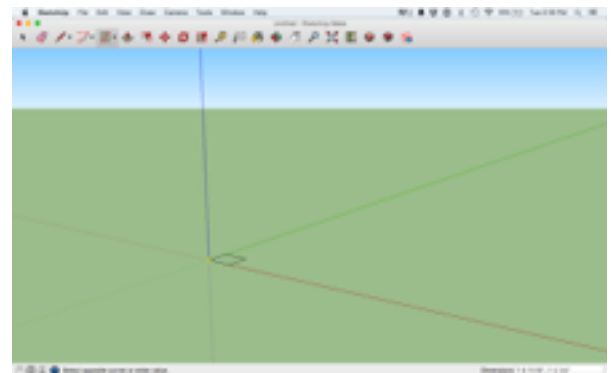
1. Download SketchUp from <http://www.sketchup.com/>, see below [1] for help with this. Once it is installed, there will be a folder called "SketchUp 2015" with your applications, and inside that you will find the SketchUp app.



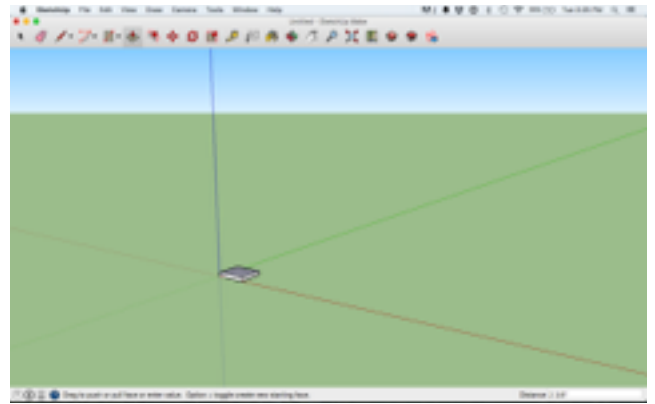
2. Once you open the program, choose "Simple template, Feet and Inches. Then select "Start Using SketchUp"



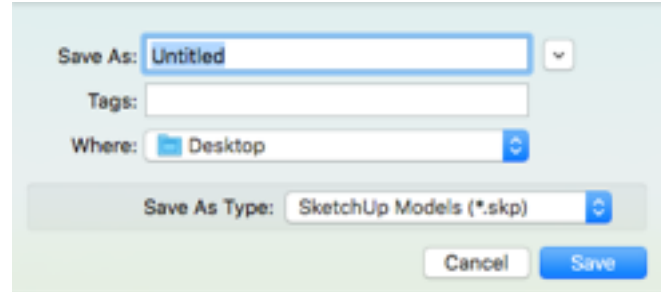
3. You will come to your 3D "area". Click on the guy, and hit the delete key. If you want to learn about navigating around your 3D space, see number 2 below. Select the rectangle tool, and click at the origin of the space (where all 3 axis meet). Drag it out like in the picture. **IMPORTANT: Do not make it too big, you will be printing it. The sides lengths are in the bottom right corner, make it less than 3 inches (not 3 feet!).** You should now have a small rectangle!



4. Next you want to choose the “Extrude tool”. This is the tool that looks like a box with an arrow out the top (next to the rectangle tool). Hover over the surface of your small rectangle, it should turn blueish. Click and drag the top out a little bit. **Again, don't make it too tall.**



5. Save the sketchUp file by clicking File -> Save As. Make sure the type is .skp, and name it whatever you want. Put the file on a flash drive and give the flash drive to someone at the help desk, and we will start your print.



[1]	http://help.sketchup.com/en/article/36213
[2]	http://help.sketchup.com/en/article/80961