

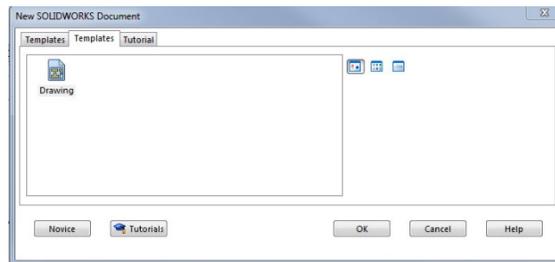
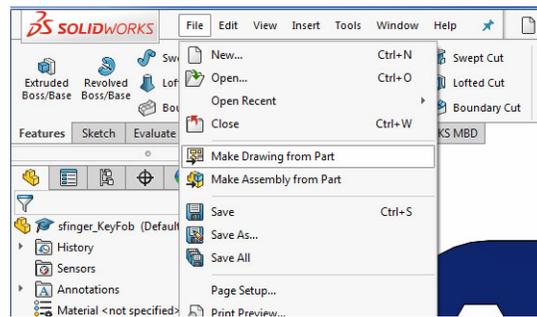
SolidWorks Drawings

Dave Touretzky and Susan Finger

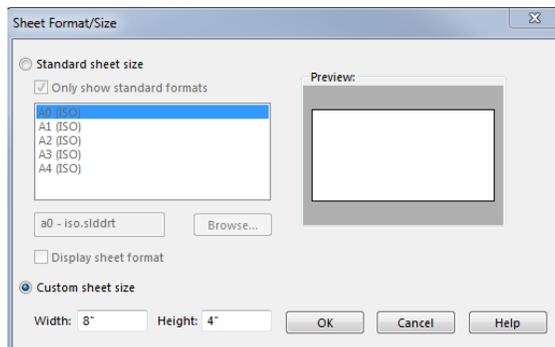
1. Making a drawing in SolidWorks

Most 2D fabrication technologies require files in a format called DXF, Drawing eXchange Format, which dates from the early 1980s. The format was originally created so that users could reproduce AutoCAD drawings even if they didn't have the AutoCAD software. DXF is quirky and old, but is still a standard format, particularly for exchange of 2D drawings. One of its oddest oddities is that it does not include the units of the dimensions; therefore, you always need to tell the user or program which is receiving the DXF file what the units are.

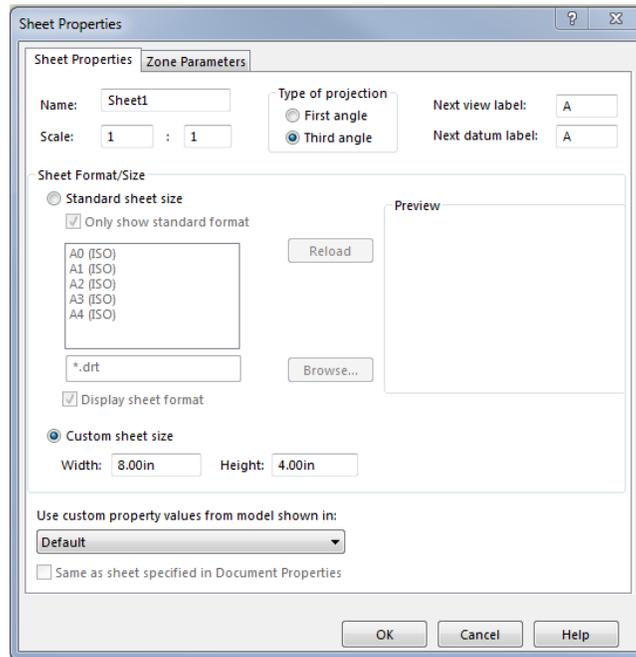
To save a SolidWorks part as a DXF file, you first need to convert the 3D part to a drawing. Select **File** → **Make drawing from part** → **Templates** → **Drawing**



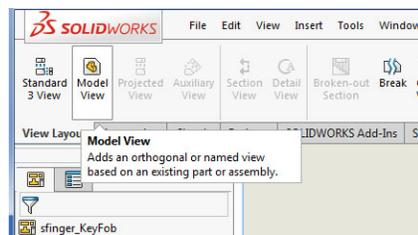
Uncheck the “Display sheet format” box and set a custom size to 8” x 4” and click OK.



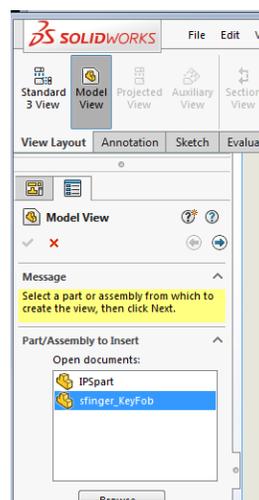
Right click on the **Sheet1** tab in the lower left. Select **Properties** and make sure the scale is 1:1 and that the size is 8" by 4" and click **OK**.



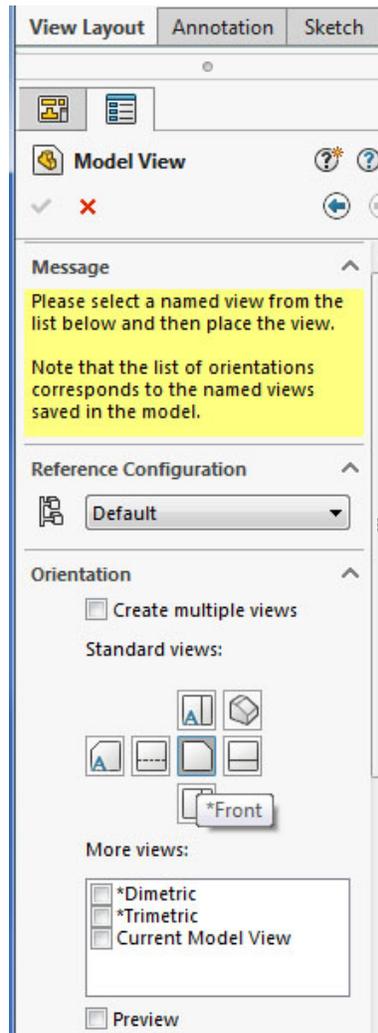
Switch to **Model View**.



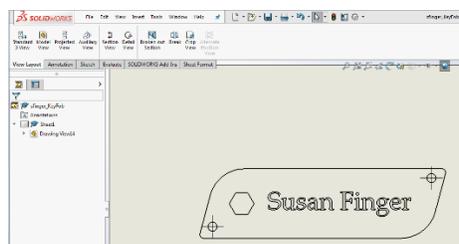
Double click on your part name.



In the next screen, find the Front view of your part and drag the icon into the drawing area.

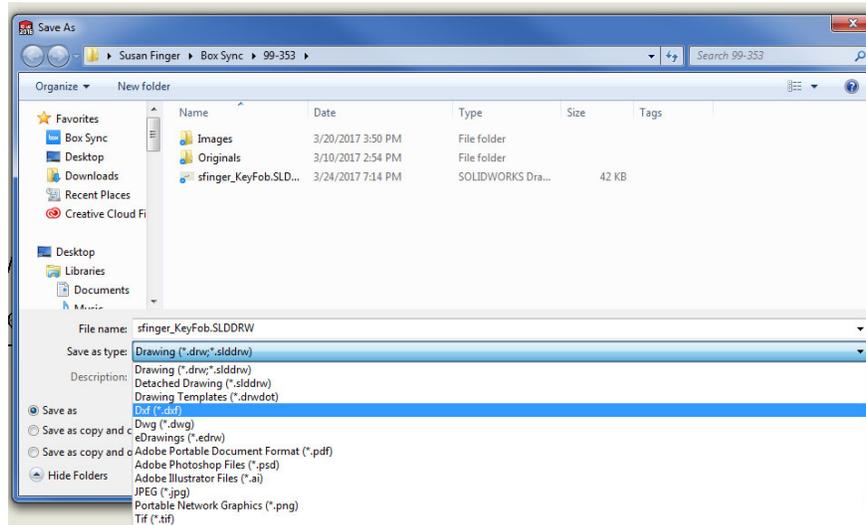


Press escape to stop inserting views.



Select the cross hairs that mark the center of the hole and delete them. If you forget to do this in the SolidWorks (which I did), you can also delete them in Inkscape, which is the next step.

Select **File** → **Save as** andrewid_KeyFob.SLDDRW. Note that the extension of the drawing file is SLDDRW, i.e., a SolidWorks drawing file. Finally, select **File** → **Save as** and save your file as a DXF file.



Note that you can save your file as a DXF file from the 3D modeling screens in SolidWorks; however, the DXF file that you export from the model view is a drawing of the complete 3D object which can lead to problems when you send it to the laser cutter. Creating a 2D drawing of the front view is more likely to lead to a successful laser cut.