Appendix B – STL Tutorial

B.1 SolidWorks

1) Open the STL file. If prompted for import diagnostics, click no:
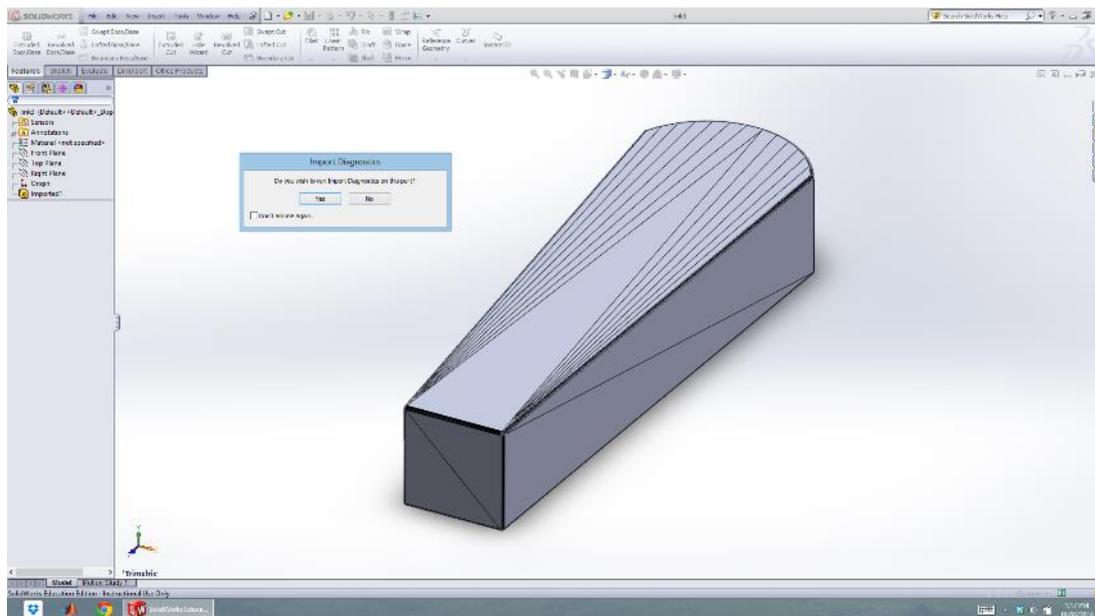

Figure 42 SolidWorks tutorial - step 1

2) Right click on the face that needs work, and click sketch:
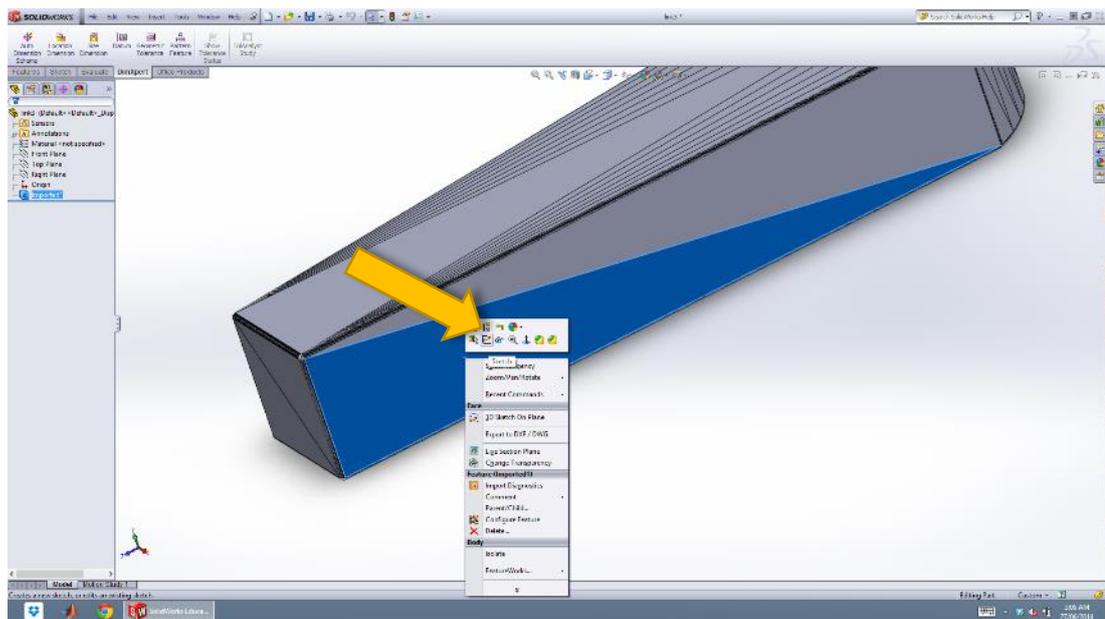
Figure 43 SolidWorks tutorial – step2

3) From a corner, draw two perpendicular lines longer than the link:
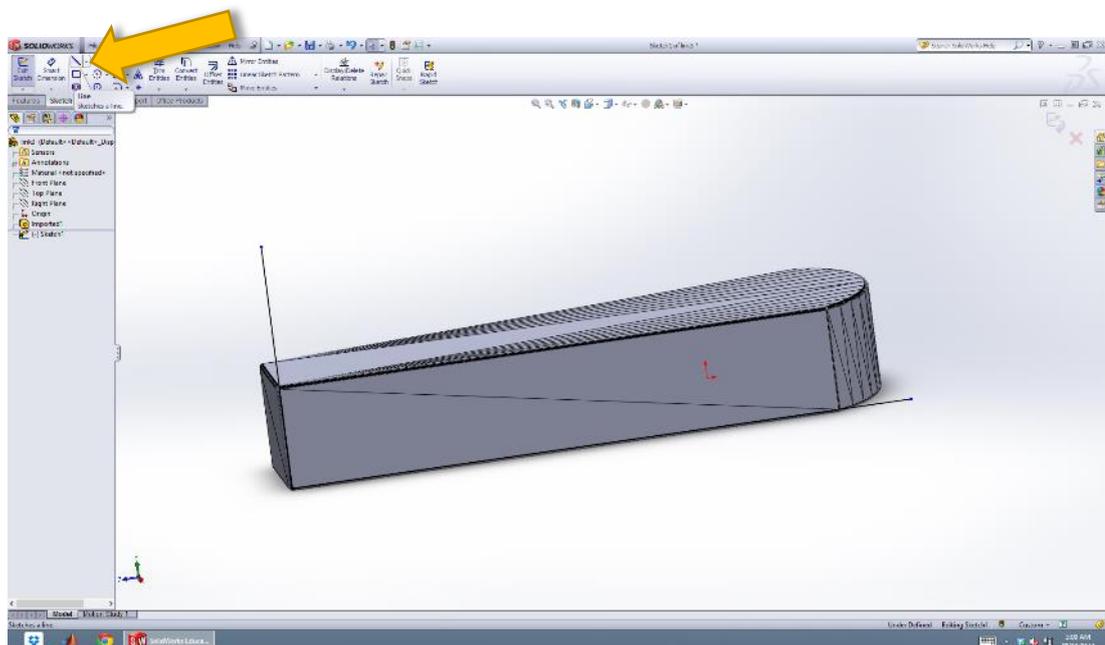

Figure 44 SolidWorks tutorial – step 3

4) Use the linear sketch pattern tool to make a grid that covers the face:
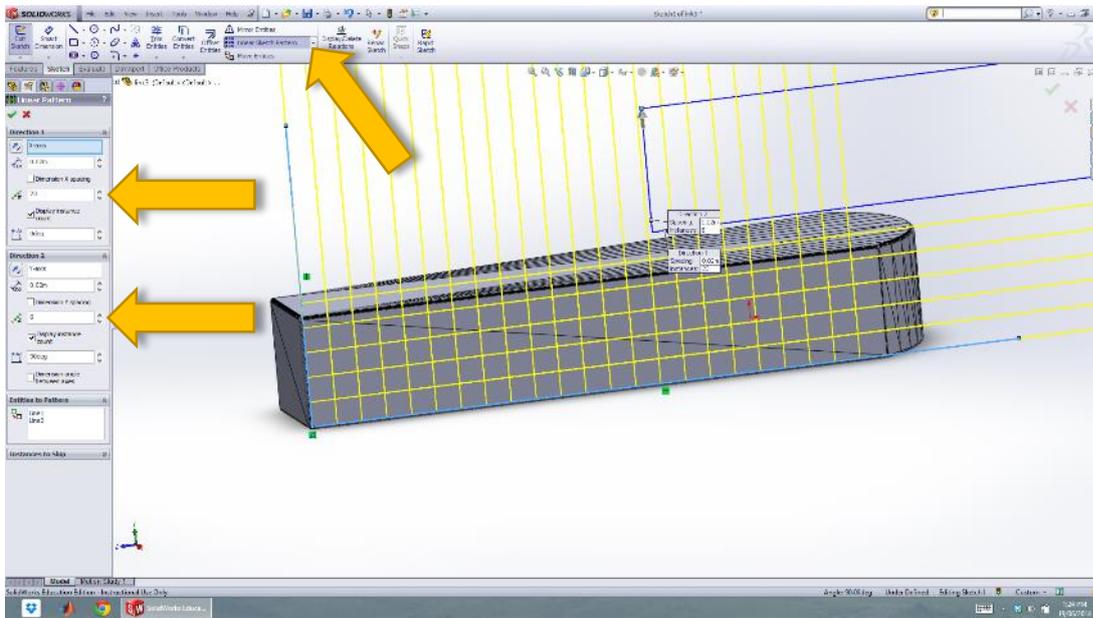
Figure 45 SolidWorks tutorial – step 4

5) Go to Insert > Curve > Split Line…
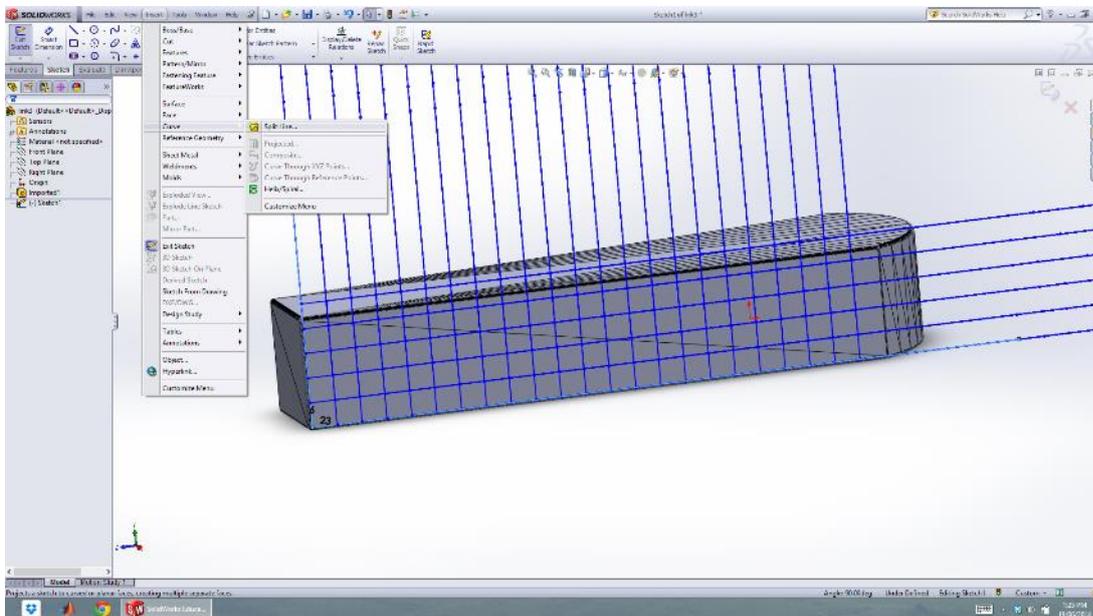
Figure 46 SolidWorks tutorial – step 5

6) Select your sketch and face, and press enter:
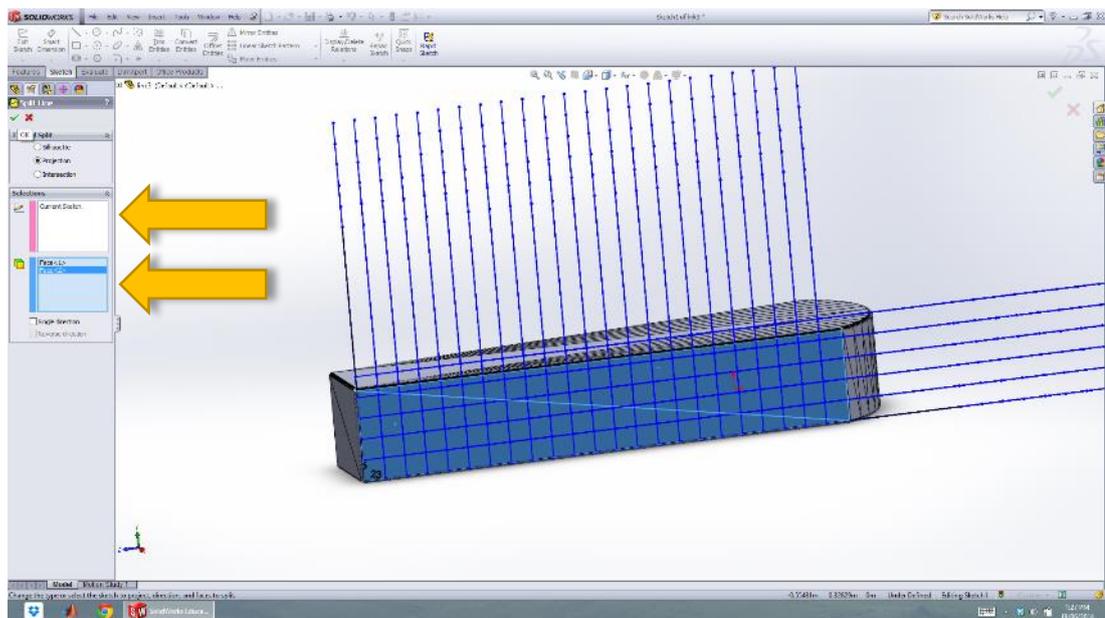
Figure 47 SolidWorks tutorial – step 6

7) Done!
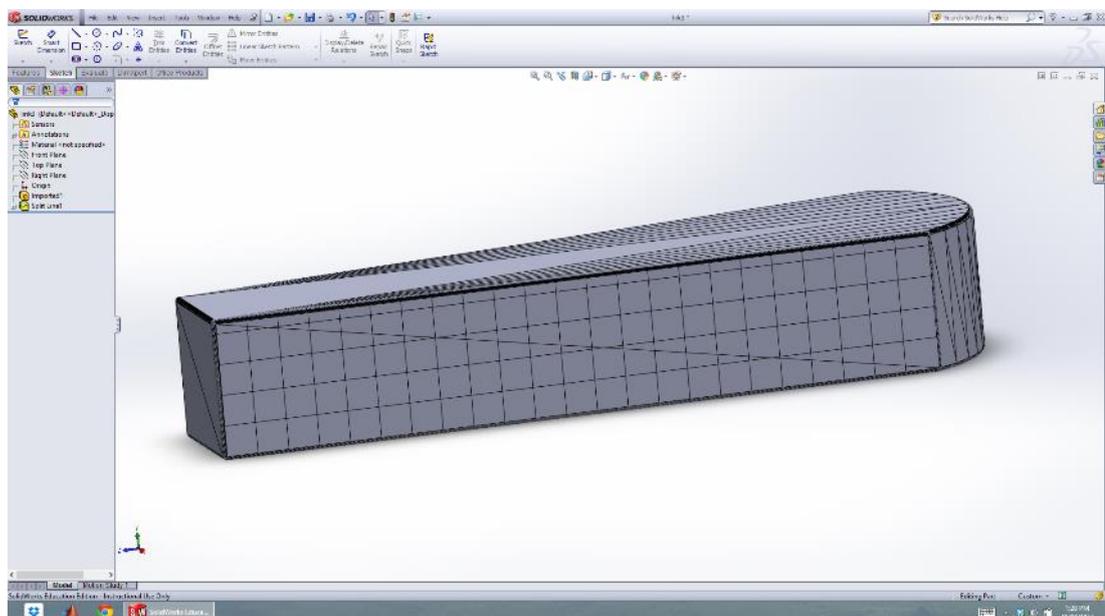
Figure 48 SolidWorks tutorial – step 7

8) Go to File > Save As… and select the STL file extension. Below, click options to open the Export Options dialog. Set output to ASCII and unit to meters. A coarse resolution is recommended. Finally, make sure the 'Do not translate STL output data to positive space' option is ticked. Down the bottom, you can specify a coordinate system to save the point data in:
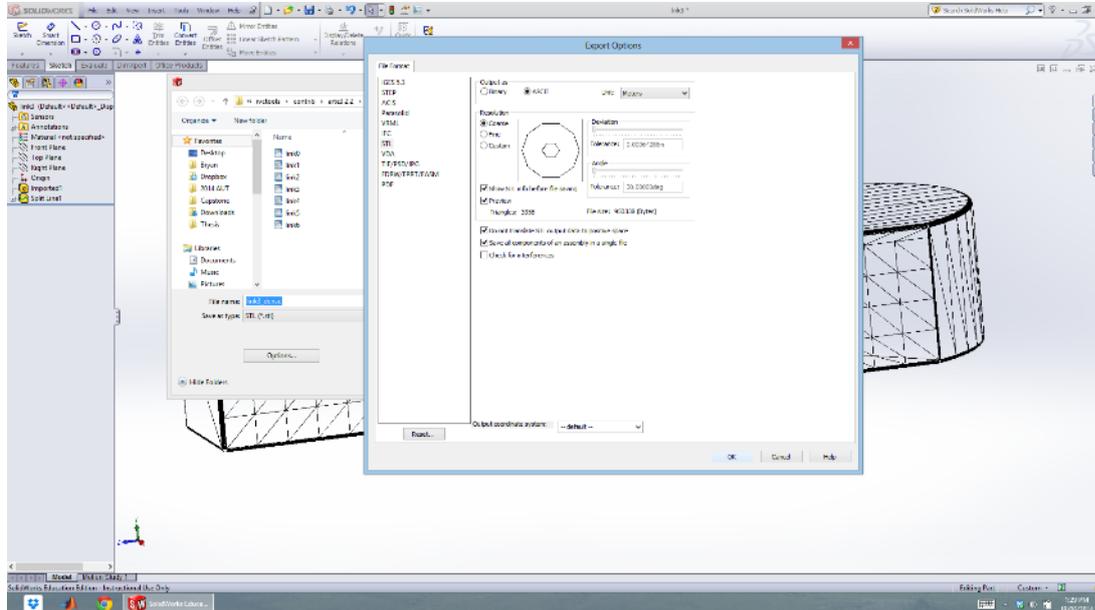

Figure 49 SolidWorks tutorial – step 8