

Cura 4.0 3D Printing Laboratory Exercises

EXERCISE 1: MODELING

Discussion: 3D rendering or modeling is widely used in various applications. In manufacturing 3D modeling may be used to create 3D renderings which will then be imported into a 3D printing device. From the 3D printer a prototype model or a fully functional usable part can be made.

Objective: In this lab, using your knowledge of 3D modeling software, you will create the object specified below. This part will be saved in a .stl format so that it can be imported into the 3D printer.

Procedure:

1. Use the drawing below and create the coin with the dimensions as shown.
2. On one side of the coin add the letters “ACTI” all in CAPS. The lettering should be at a raised height of 0.0625”.
3. On the other side of the coin add the letters “ACCD” all in CAPS. The lettering should be at a raised height of 0.0625”.
4. Be creative and add any sort of technical design that you like to the coin (ex. Gears, lightning bolt, tools, etc...)
5. Inform the instructor when you are done. The instructor will review your work and provide a flash drive for you to save your file. The file format for saving you file will be:

first initial_last name_NSF_3Dcoin

Example: For Johnathan miller the file would be saved as: jmiller_NSF3Dcoin

NOTE: Remember to save the file in a .stl file type format.

