EXERCISE 2: PREPARE

Discussion: When a model has been rendered in a 3D software it can be used in various ways. It may be used to provide a 3D orthographic view of an object or it may be saved so that it can be imported into a 3D printer so that the part can be printed.

Objective: At the end of this lab you will be able to:

1. Import a file into the Cura software
2. Verify or select the material required for each extruder
3. Maneuver the various print settings to set either Normal or preferred print quality settings
4. Manuever the various manipulation tools to move, scale, rotate, mirror, or add support blocking, as needed

Procedure:

1. Import file: There are two ways to import a file into Cura. To import a compatible file into Cura:
    a. Method 1:
        i. Click on the file folder in the upper left corner of the software window
        ii. Browse to and open the file folder that contains the compatible file
        iii. Select the file and click the "OPEN" button
    b. Method 2:
        i. In the far upper left corner of the software window, click on the word "File".
        ii. In the drop down menu select "Open file(s)
        iii. Browse to and open the file folder that contains the compatible file
        iv. Select the file and click the "OPEN" button

    Using either method, the file should open and the part should display on the build plate of the virtual Ultimaker 3D printer.

2. Verify the materials: The extruder information and links are shown at the top of the software window, just to the right of the file folder.

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:

1) **Prepare:**
    a) Import file from cura's open folder
    b) Verify that the material on each extruder are correct
    c) Select quality of printing (recommended, set to Normal)
    d) **Scaling:**
        i)   Move
        ii) Scale
        iii) Rotate
        iv) Mirror
        v)   Support Blocker