**G-Code Coding Assignment**

**Directions:** Write a G-code program in ncviewer.com for the following:

* L-Block
* U-Block
* Bracket
* Tool Rest

Be sure to also include the following code:

* Machine setup: use the Machine Setup and Shutdown Code from the G-code tutorial.
* Homing position: adjust the homing position based on the part. Be sure the home position is above and away from the part by a minimum of 30 mm.
* Tool path: consider the direction of the tool path. Limit the number of times that the tool traces over the same line. (Hint: move the tool off the part and reposition using G00 to avoid tracing any lines). Mark any traced lines with a comment within the code.

You may consider turning the grid off as parts will be larger than the given grid. Go to Backplotter Settings > Show Grid

**Part 1:** L-Block
References: Origin and coordinate points.
Part: metric





**Part 2:** U-Block

References: Dimensions of the part.
Step 1: Determine the origin point.

Step 2: Convert dimensions into coordinate points.

Step 3: Write the program.

Part: metric



**Part 3:** Bracket

References: Dimensions of the part.
Step 1: Determine the origin point.

Step 2: Convert dimensions into coordinate points.

Step 3: Write the program

NOTE: To create arcs, adjust code to G18 (z- and x-axis). Use the I,J,K method in G-Codes Basics Tutorial.

Part: metric



**Part 4:** Tool Rest

References: Dimensions of the part.
Step 1: Determine the origin Point

Step 2: Convert dimensions into coordinate points.

Step 3: Write the program.

Part: inches

