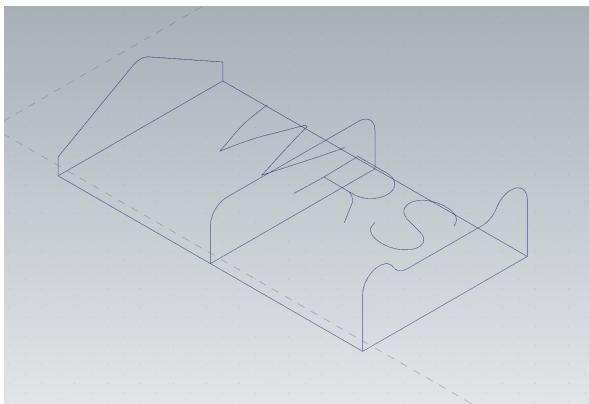
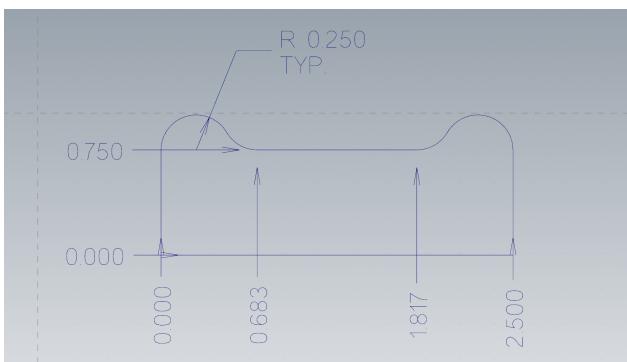
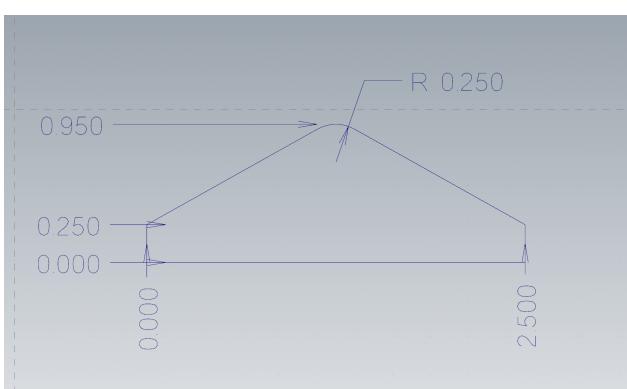
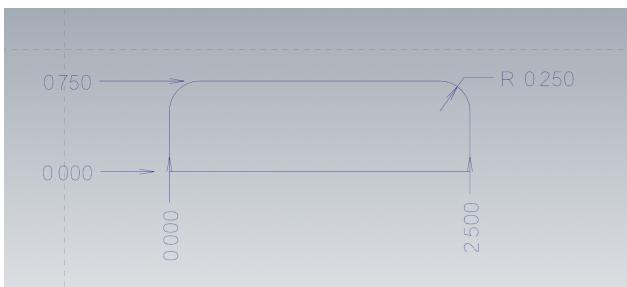


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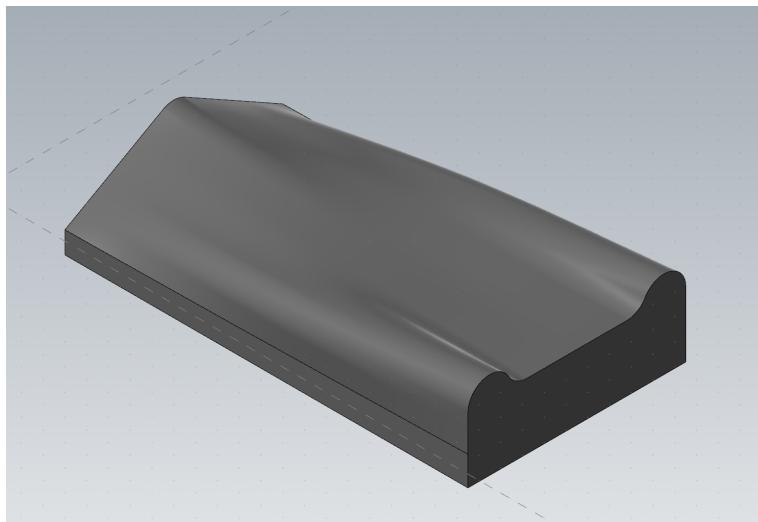
I. Wireframe:



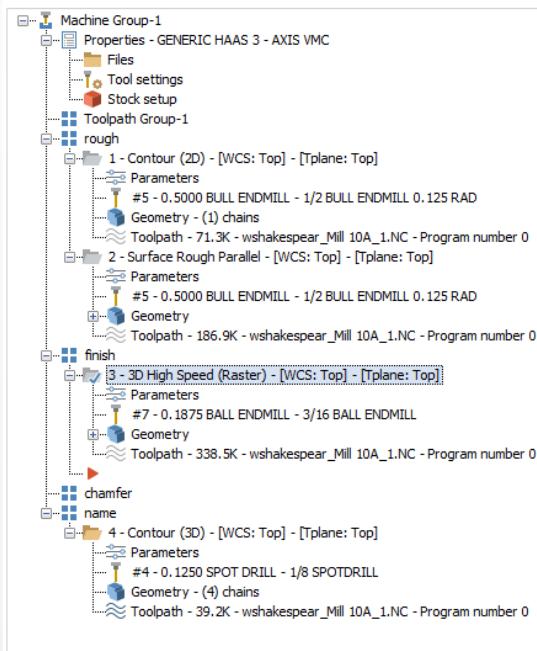
II. Dimensions:



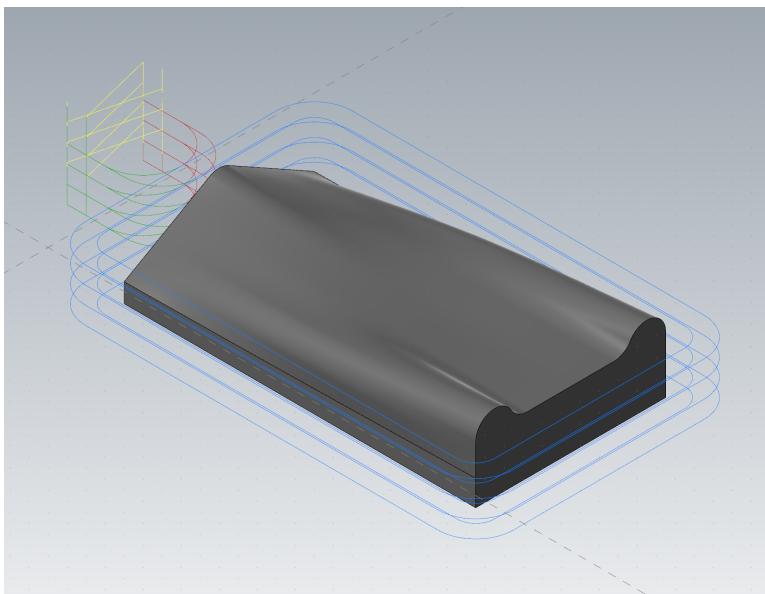
### III. Solid:



### IV. Toolpath:



V.  $\frac{1}{2}$ " Endmill:

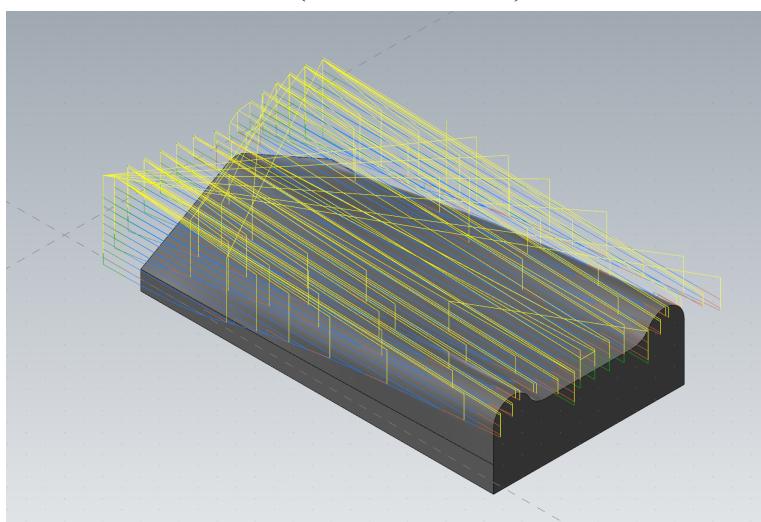


|                                       |       |
|---------------------------------------|-------|
| Tool diameter:                        | 0.5   |
| Corner radius:                        | 0.125 |
| Tool name: 1/2 BULL ENDMILL 0.125 RAD |       |
| Tool #:                               | 5     |
| Length offset:                        | 5     |
| Head #:                               | 0     |
| Diameter offset:                      | 5     |

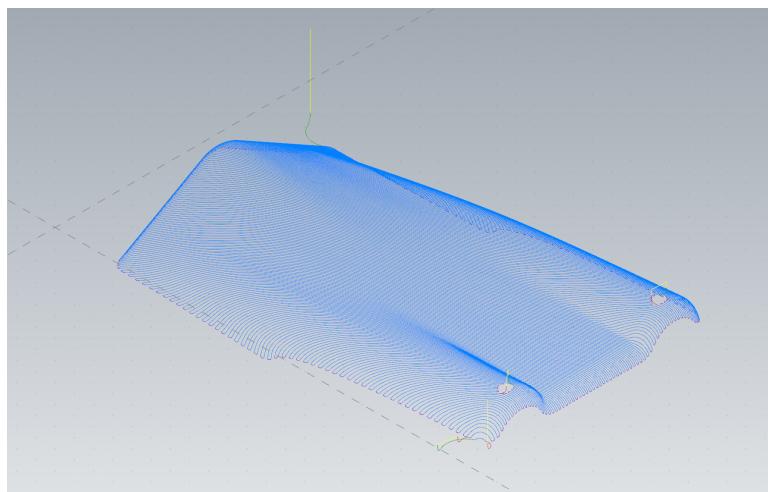
|  |  |
|--|--|
| Spindle direction:                         | CW                                     |
| Feed rate:                                 | 50.0                                   |
| Spindle speed:                             | 4966                                   |
| FPT:                                       | 0.0025                                 |
| SFM:                                       | 650.0                                  |
| Plunge rate:                               | 8.5568                                 |
| Retract rate:                              | 8.5568                                 |
| <input type="checkbox"/> Force tool change | <input type="checkbox"/> Rapid Retract |

VI.  $\frac{3}{8}$ " Bull Endmill (0.0625" corner):



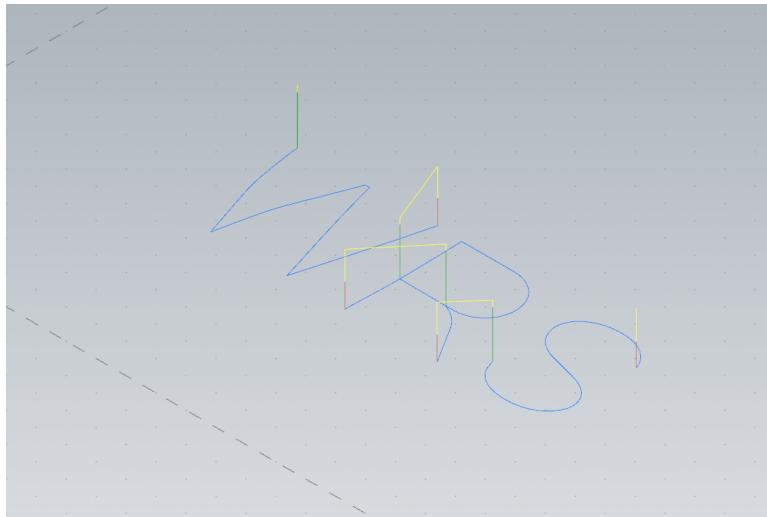
|  |   |                  |        |
|--|---|------------------|--------|
| Tool name:                                 | 1/2 BULL ENDMILL 0.125 RAD                        |                  |        |
| Tool #:                                    | 5   | Length offset:   | 5      |
| Head #:                                    | 0   | Diameter offset: | 5      |
| Tool diameter:                             | 0.5   | Corner radius:   | 0.125  |
| <input type="checkbox"/> RCTF              |   |                  |        |
| Coolant...                                 | Spindle direction:                                | CW               |        |
| Feed rate:                                 | 39.750298   | Spindle speed:   | 4966   |
| FPT:                                       | 0.002   | SFM:             | 650.0  |
| Plunge rate:                               | 8.5568  | Retract rate:    | 8.5568 |
| <input type="checkbox"/> Force tool change | <input checked="" type="checkbox"/> Rapid retract |                  |        |

## VII. $\frac{3}{8}$ " Ball Endmill:



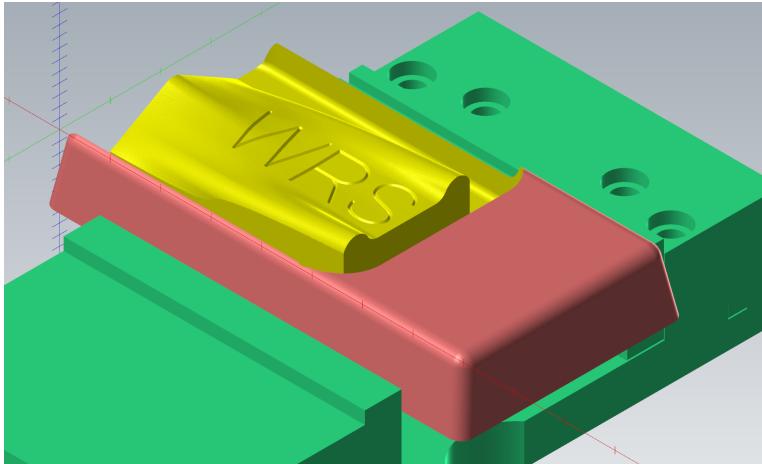
|  |   |                  |        |
|--|---|------------------|--------|
| Tool diameter:                             | 0.375   |                  |        |
| Corner radius:                             | 0.1875  |                  |        |
| Tool name:                                 | 3/8 BALL ENDMILL                                  |                  |        |
| Tool #:                                    | 3   | Length offset:   | 3      |
| Head #:                                    | 0   | Diameter offset: | 3      |
| Spindle direction: CW                      |   |                  |        |
| Feed rate:                                 | 80.0  | Spindle speed:   | 4966   |
| FPT:                                       | 0.004   | SFM:             | 487.5  |
| Plunge rate:                               | 6.4176  | Retract rate:    | 6.4176 |
| <input type="checkbox"/> Force tool change | <input checked="" type="checkbox"/> Rapid Retract |                  |        |

## VIII. $\frac{1}{8}$ " Spot Drill:



|  |  |                  |        |
|--|--|------------------|--------|
| Tool diameter:                             | 0.125                                  |                  |        |
| Corner radius:                             | 0.0                                    |                  |        |
|  |  |                  |        |
| Tool name:                                 | 1/8 SPOTDRILL                          |                  |        |
| Tool #:                                    | 4                                      | Length offset:   | 4      |
| Head #:                                    | 0                                      | Diameter offset: | 4      |
|  |  |                  |        |
| Spindle direction:                         | CW                                     |                  |        |
| Feed rate:                                 | 50.0                                   | Spindle speed:   | 4966   |
| FPT:                                       | 0.005                                  | SFM:             | 162.5  |
| Plunge rate:                               | 8.5568                                 | Retract rate:    | 8.5568 |
| <input type="checkbox"/> Force tool change | <input type="checkbox"/> Rapid Retract |                  |        |

## IX. Final Solid:



#### X. Method:

For this one I followed the tutorial for creating the loft. I didn't use the z function though since it was a little odd and just drawing the geometry and translating it makes more sense in my head. Then I used the project tool to put my initials on top of the surface.

#### XI. GCode Changes

To modify my gcode to be compatible with the machine I first made sure the HAAS 3 axis post processor was selected when exporting the gcode. Then I removed the long lines at the beginning and edited the last G28 home command to not zero the x axis.

#### XII. Finished Part

