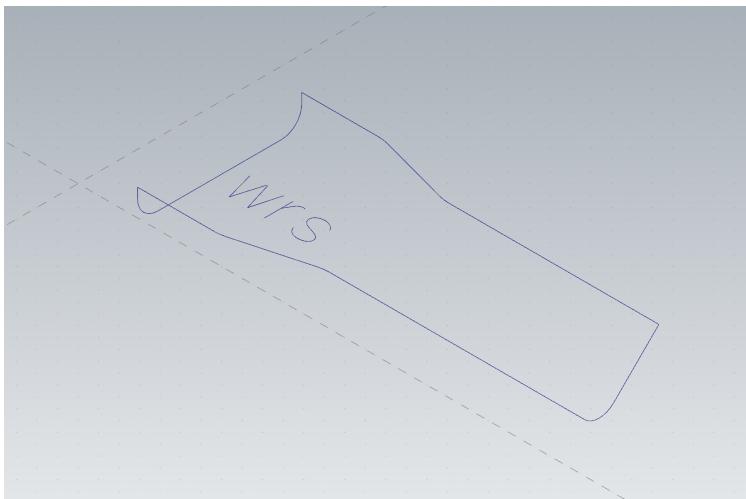
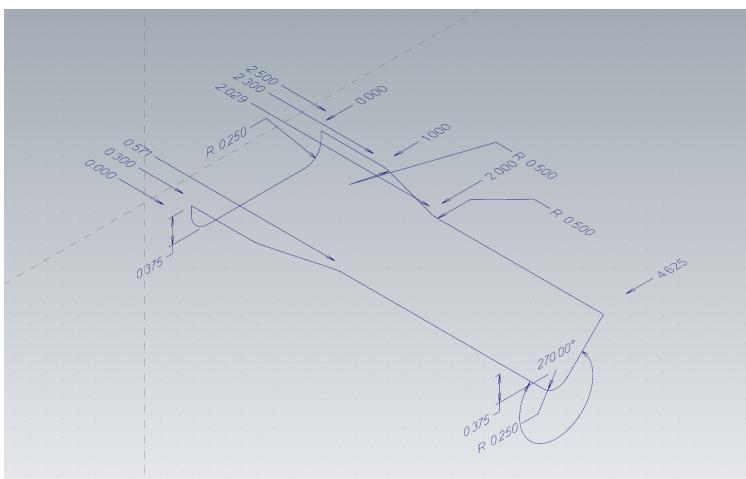


CCET 3680  
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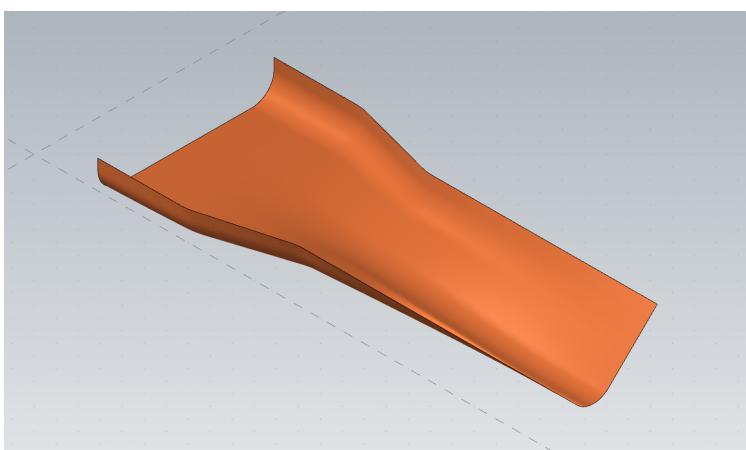
I. Wireframe:



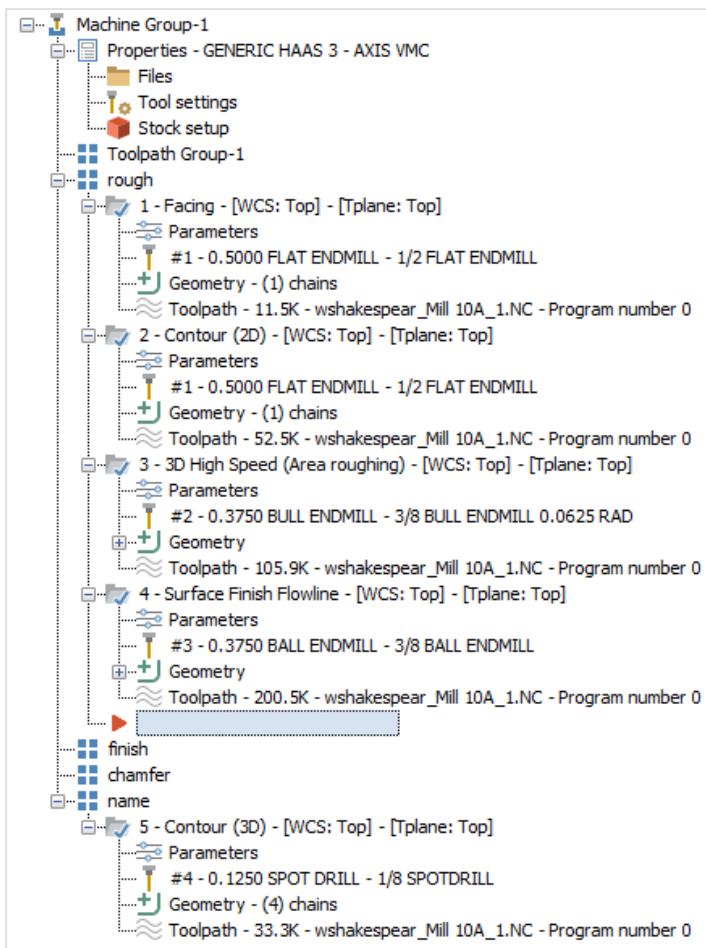
II. Dimensions:



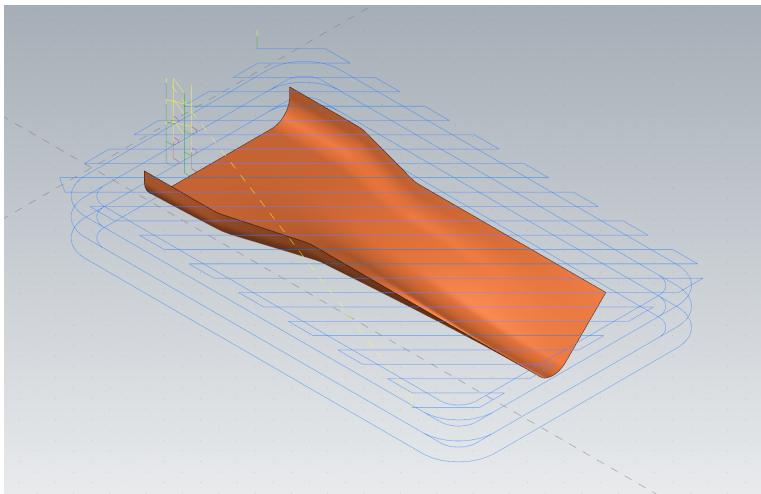
III. Solid:



#### IV. Toolpaths:



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



**2D Toolpaths - Facing**

**Toolpath Type:** Holder

**Cut Parameters:** Depth Cut, Linking Parameters

**Quick View Settings:**

- Tool: 1/2 FLAT EN...
- Tool Diameter: 0.5
- Corner Radius: 0.0
- Feed Rate: 50
- Spindle Speed: 4966
- Coolant: Off
- Tool length: 3
- Length Offset: 1
- Diameter Off.: 1
- Cplane / Tpl.: Top
- Axis Comb.: Default

**Tool Selection:**

Status	Tool Number	Assembly No.	Tool Name
<input checked="" type="checkbox"/>	1	-	1/2 FLAT E...
<input type="checkbox"/>	2	-	3/8 SPOT...
<input checked="" type="checkbox"/>	2	-	1/2 SPOT...
<input checked="" type="checkbox"/>	3	-	3/8 BULL...
<input checked="" type="checkbox"/>	4	-	1/8 SPOT...
<input type="checkbox"/>	5	-	1/2 BULL...
<input type="checkbox"/>	6	-	1/2 BALLE...
<input type="checkbox"/>	7	-	3/16 BALL...

**Tool Path Parameters:**

- Tool: 1/2 FLAT ENDMILL
- Tool #: 1
- Length offset: 1
- Head #: 0
- Diameter offset: 1

**Tool Path Options:**

- RCTF:
- Spindle direction: CW
- Feed rate: 50.0
- Spindle speed: 4966
- FPT: 0.0025
- SFM: 650.0
- Plunge rate: 35.0
- Retract rate: 40.0
- Force tool change:
- Rapid Retract:

**Comment:**

**Generate toolpath:**

**2D Toolpaths - Contour**

**Toolpath Type:** Tool

**Cut Parameters:** Depth Cut, Linking Parameters

**Quick View Settings:**

- Tool: 1/2 FLAT EN...
- Tool Diameter: 0.5
- Corner Radius: 0.0
- Feed Rate: 45
- Spindle Speed: 4966
- Coolant: Off
- Tool length: 3
- Length Offset: 1
- Diameter Off.: 1
- Cplane / Tpl.: Top
- Axis Comb.: Default

**Tool Selection:**

Status	Tool Number	Assembly No.	Tool Name
<input checked="" type="checkbox"/>	1	-	3/8 FLATE...
<input type="checkbox"/>	2	-	1/2 SPOT...
<input checked="" type="checkbox"/>	2	-	3/8 BULL...
<input checked="" type="checkbox"/>	3	-	3/8 BALLE...
<input checked="" type="checkbox"/>	4	-	1/8 SPOT...
<input type="checkbox"/>	5	-	1/2 BULL...
<input type="checkbox"/>	6	-	1/2 BALLE...
<input type="checkbox"/>	7	-	3/16 BALL...

**Tool Path Parameters:**

- Tool: 1/2 FLAT ENDMILL
- Tool #: 1
- Length offset: 1
- Head #: 0
- Diameter offset: 1

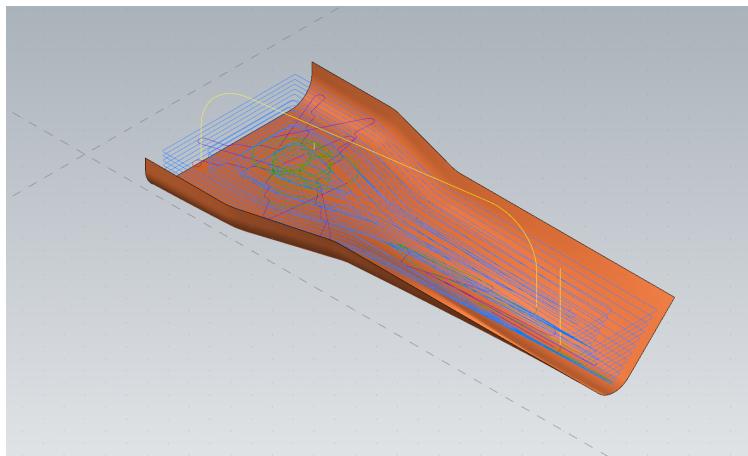
**Tool Path Options:**

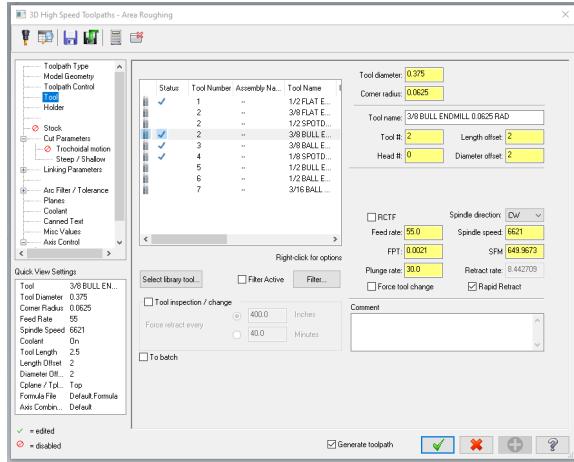
- Spindle direction: CW
- Feed rate: 45.0
- Spindle speed: 4966
- FPT: 0.0023
- SFM: 650.0
- Plunge rate: 35.0
- Retract rate: 40.0
- Force tool change:
- Rapid Retract:

**Comment:**

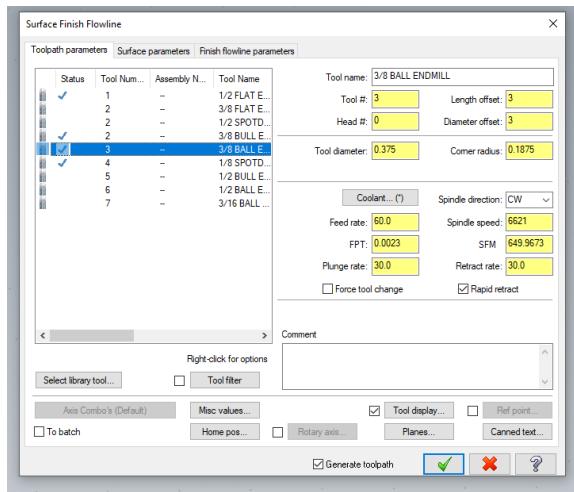
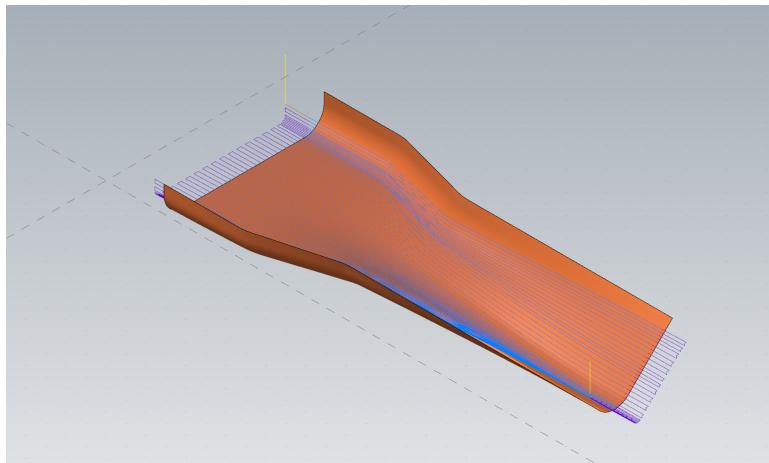
**Generate toolpath:**

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

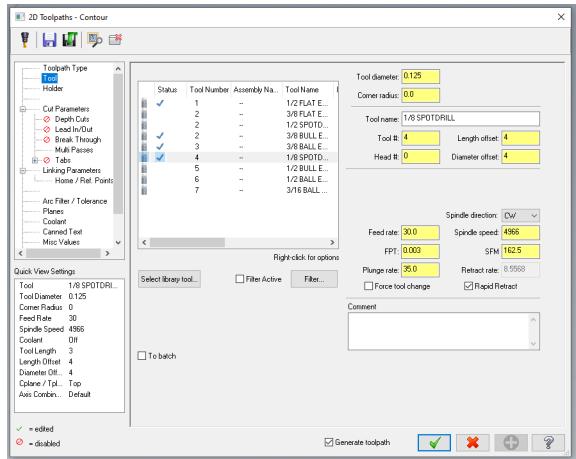
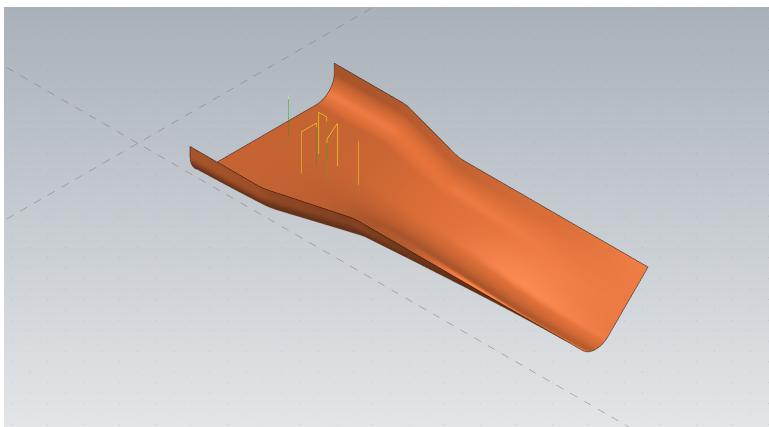




## VII. $\frac{3}{8}$ " Ball Endmill:



### VIII. 1/8" Spot Drill:



### X. Method:

I followed the tutorial step by step for this one since I didn't know how to create the surface feature.

### 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

Report by Weston Shakespear  
Spring 2023

