

PART ORIENTATION FOR SMOOTH FINISH

CAD ☐Insight ☒Finishing ☐Maintenance/System ☐Skill Level ☒ ☐ ☐

When orientating a part, consideration must be given to surface finish. This is due to the process of slicing the part in increments. Better surface finishes will be achieved by building the surface in the xy plane. Any surface built in the z-axis will be stepped. If the part was built as orientated in figure 1, poor surface finish along the angled surface would be visible.

Process

Step 1

Slice the part (figure 2). Once sliced in this orientation, stepping is visible along the angled surfaces. This will produce a rough surface.

Step 2

Rotate the part around the x-axis (figure 3). By rotating the part, surface finish will greatly improve on the finished part.

Step 3

Slice the file again. Notice angled surface is now being built in the xy plane (figure 4). This will produce a smooth finish.

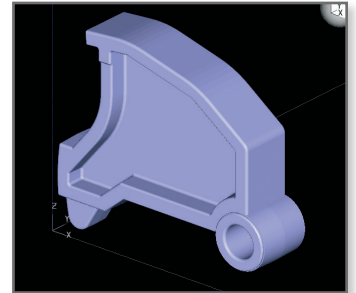


Figure 1: Original part orientation

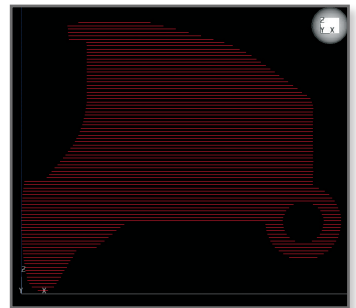


Figure 2: Sliced part

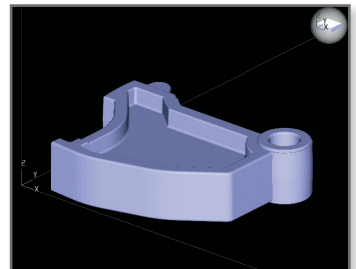


Figure 3: Rotate part in x-axis

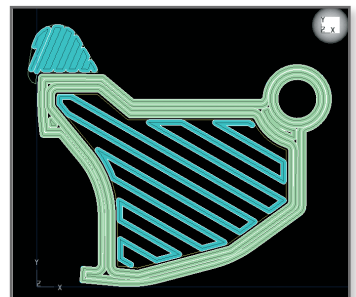


Figure 4: This part orientation will produce a smooth finish

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