Lesson: Course Challenge – Peer Review

Challenge: Every part has its own challenge when it comes to planning or programming. When parts contain complex shapes, it can be even more of a challenge to think about the most efficient method for removing material. The good news is that practice makes perfect. Starting with the supplied file "C2-CC.f3d" you will need to set up, rough and finish a part with complex shapes.

You will be expected to start with the supplied file, create a Milling Setup, Plan and build a tool library with the appropriate tools to machine the part, simulate, post process and create a setup sheet.

Toolpaths to cut the part should including adaptive clearing operations, rest machining, patterns, and advanced finishing operations such as scallop. Stock should be larger than the part and require finishing of the external contour. You can assume there is no collision or issues with vise clearance. Simulate the toolpaths to verify all material has been removed before creating a setup sheet.

The program should have the following details:

- CAM setup with appropriate stock
- Custom tool library with tools suited for roughing and finishing the part
- Toolpaths that include rest machining and advance finishing
- Pattern of at least one toolpath
- Drilling toolpath
- NC File – Exported
- Setup sheet HTML document

Ensure your final toolpaths remove all material needed.
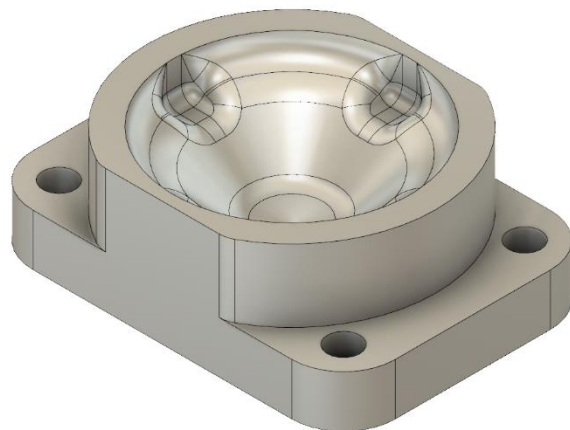
Sharing your design for review: To share your design as a text or PDF file ensure to include one of the following:

1. Share link with the download option for design file containing the CAM program as well as exported NC file and HTML setup sheet.
2. Share link for the design file without the download option and included screen shots showing toolpaths and final simulation model and NC file as well as screen shots of HTML setup sheet in the same document.

Review: Students reviewing another design must validate a few key things.

- Toolpaths were created based on requirements.
- All material was removed with selected toolpaths.
- NC File was created.
- Setup sheet was created.

Grading Rubric:

1. **Yes/No:** Was the setup created per requirements for stock?
2. **Yes/No:** Was all the material removed?
3. **Yes/No:** Did the file contain all required toolpaths?
4. **Yes/No:** Was a setup sheet created?

Options: Did the program show advanced use of toolpaths? No(0 points), Some(1 point), Yes(2 points).

Ungraded text box, Reviewer leave feedback on the design.