

Internship – Die Tech and Engineering Inc.

Personal Information

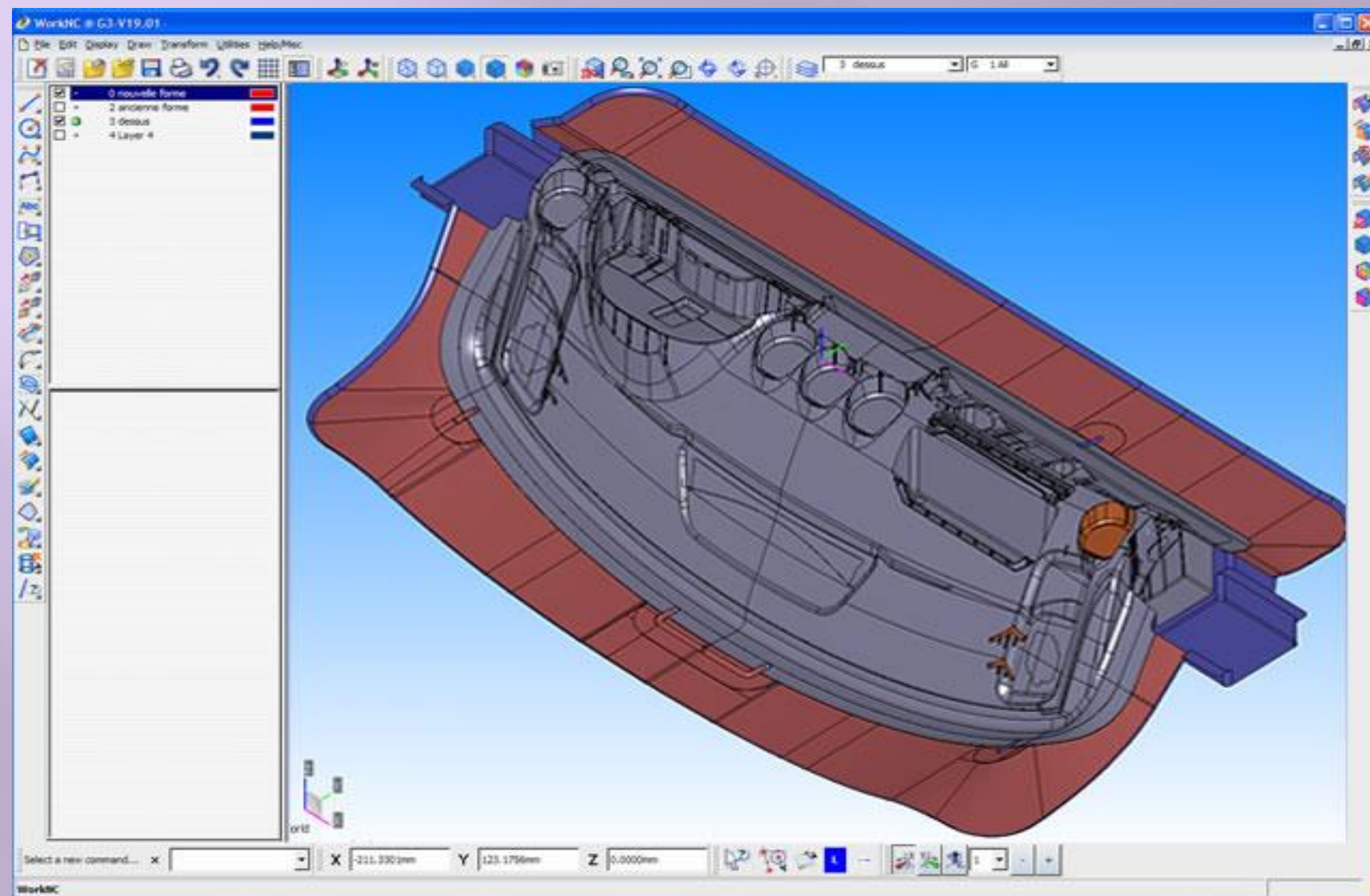
Name: Tyler VanDongen

Class: Senior

Concentration: Mechanical

Company: Die-Tech and Engineering Inc.

Design and Programming



- Design and programming consist of:
- What materials are going to be injected?
- What materials steel is to be used for making the tool?
- What is the most efficient way to manufacture this part?
- Drawing Schematics for 3D design parameters on:
 - Solid-Works and Ideas
- Program the CNC and EDM cutting and burning paths on:
 - Work NC
- Send the steel block to be manufactured

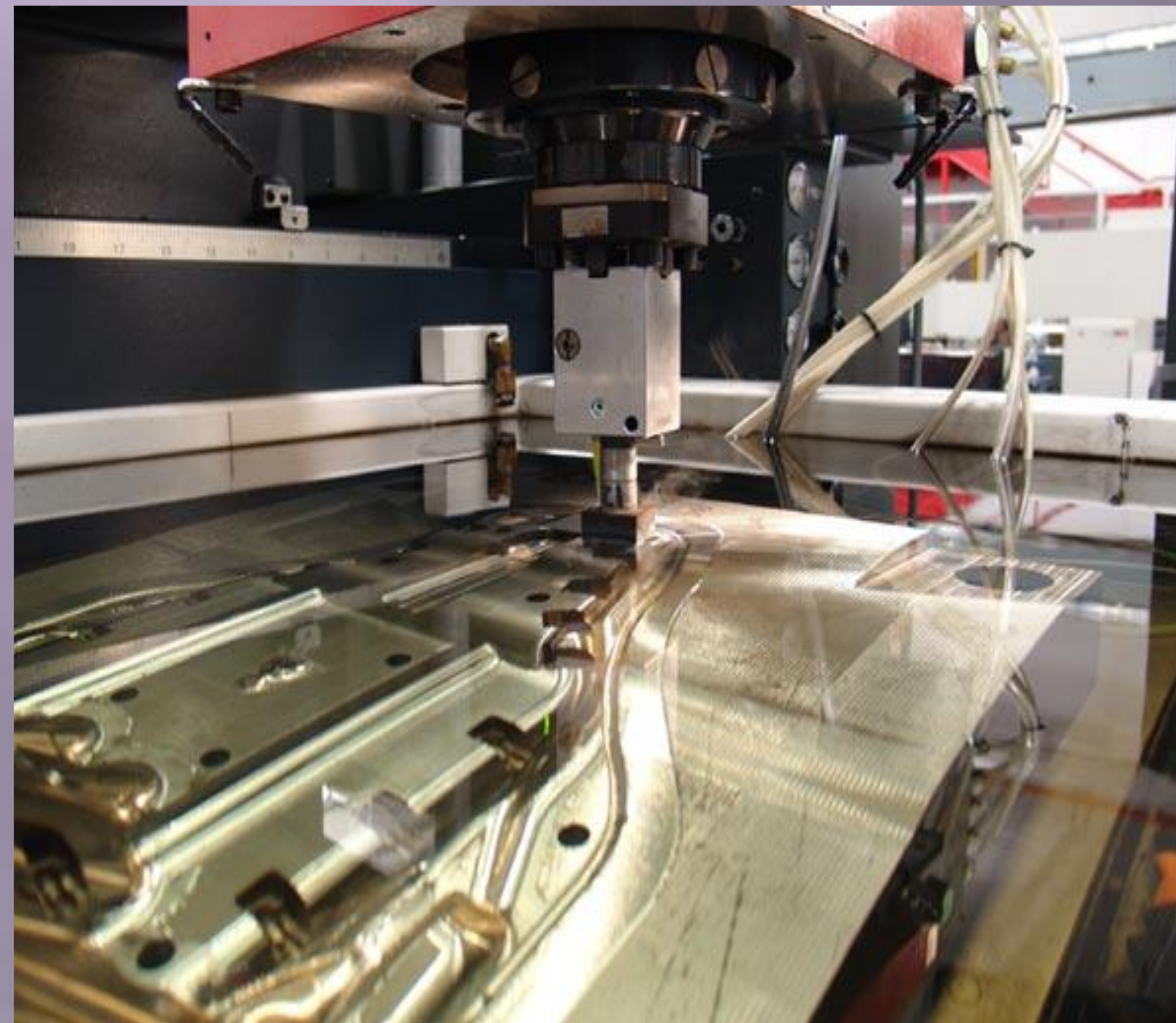
Company Information

Die Tech and Engineering is an injection molding part manufacturer and design firm.

Basic manufacturing of these parts include:

Design and Programming, machining from an electrical discharge, computer numerical control, and manual milling

EDM and EDM Wire Machining



A machining method primarily used for hard metals or those that would be impossible to machine with traditional techniques.

One critical limitation, however, is that EDM only works with materials that are electrically conductive, and generally those materials are ferrous alloys. EDM can cut small or odd-shaped angles, intricate contours or cavities in pre-hardened steel even after heat treatment

CNC Machining



A machining method that uses an internal cutting tool and has the ability to control the exact rotational position of the tool with the depth of cut, it can be used to cut screw threads.

A drilling cycle is used to repeat drilling or tapping operations on a work piece. The drilling cycle accepts a list of parameters about the operation, such as depth and feed rate. To begin drilling any number of holes to the specifications configured in the cycle, the only input required is a set of coordinates for hole location. The cycle takes care of depth, feed rate, retraction, and other parameters that appear in more complex cycles. After the holes are completed, the machine is given another command to cancel the cycle, and resumes operation.