

Summer 2021-2022 Co-ops at Hexagon Industries



Choose **Ohio** First

Logan Himmelman

INTRODUCTION

I worked two consecutive co-op sessions in the engineering department at Hexagon Industries located in Cleveland, Ohio. In the course of my co-ops, I worked in a variety of departments and gained a wide berth of industry-related skills. The co-ops took place in the Summers of 2021 and 2022 with additional part-time and remote work taking place during the school year.



Figure 1. Hexagon Industries Main Location

BACKGROUND

Hexagon Industries is a large-scale fastener manufacturing company specializing in cold forging.



Figure 2. OmniTurn GT-75 with integrated robotic arm

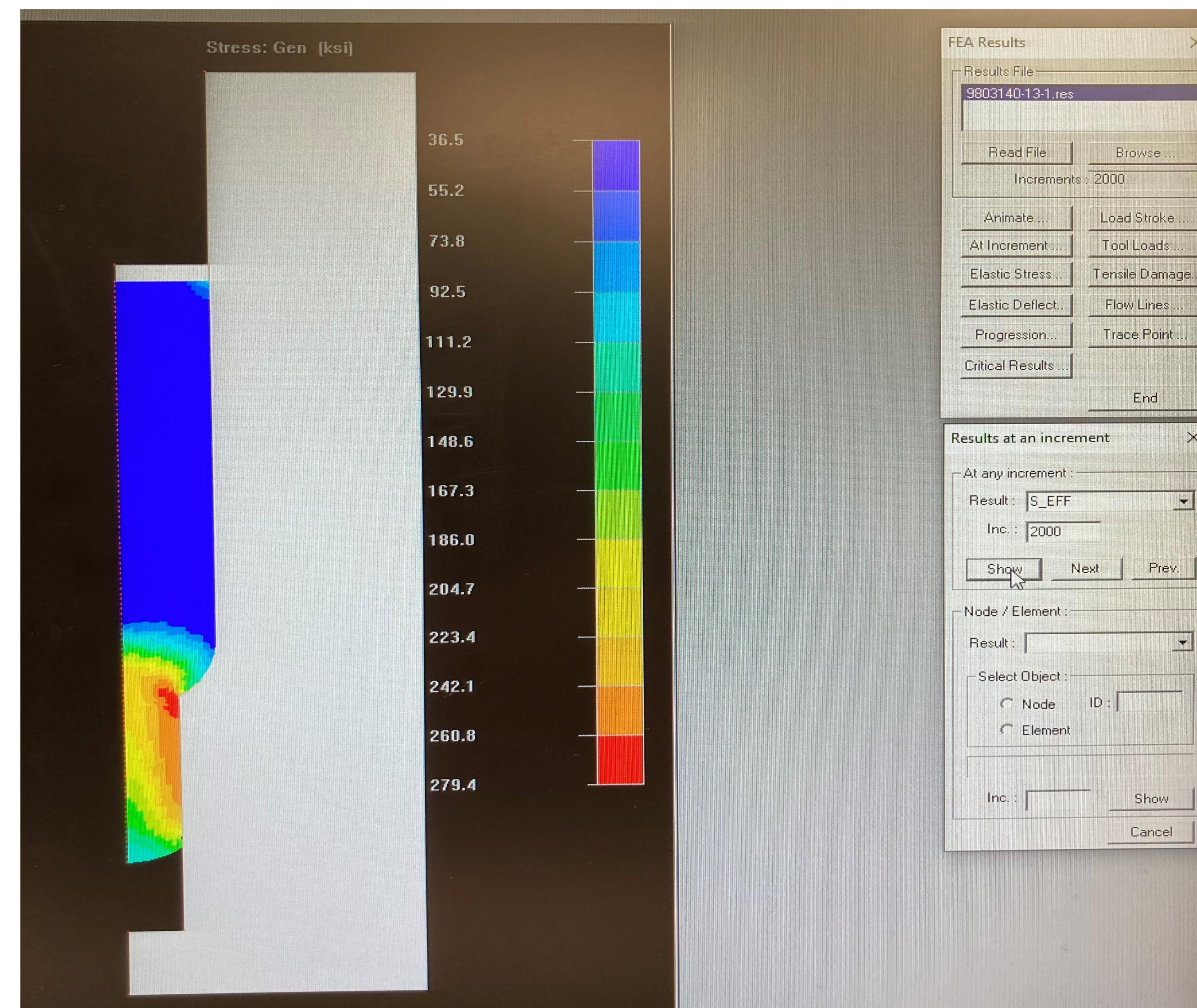


Figure 3. NAGSIM.2D FEA Simulation Software

FIRST CO-OP PROJECTS

- Integrated robotic arm into CNC machining operations to streamline production
- Learned to use 2D and 3D Finite Element Analysis
- Developed start to finish cold forging processes for proposed parts
- Practiced proper part inspection techniques using cutting edge equipment

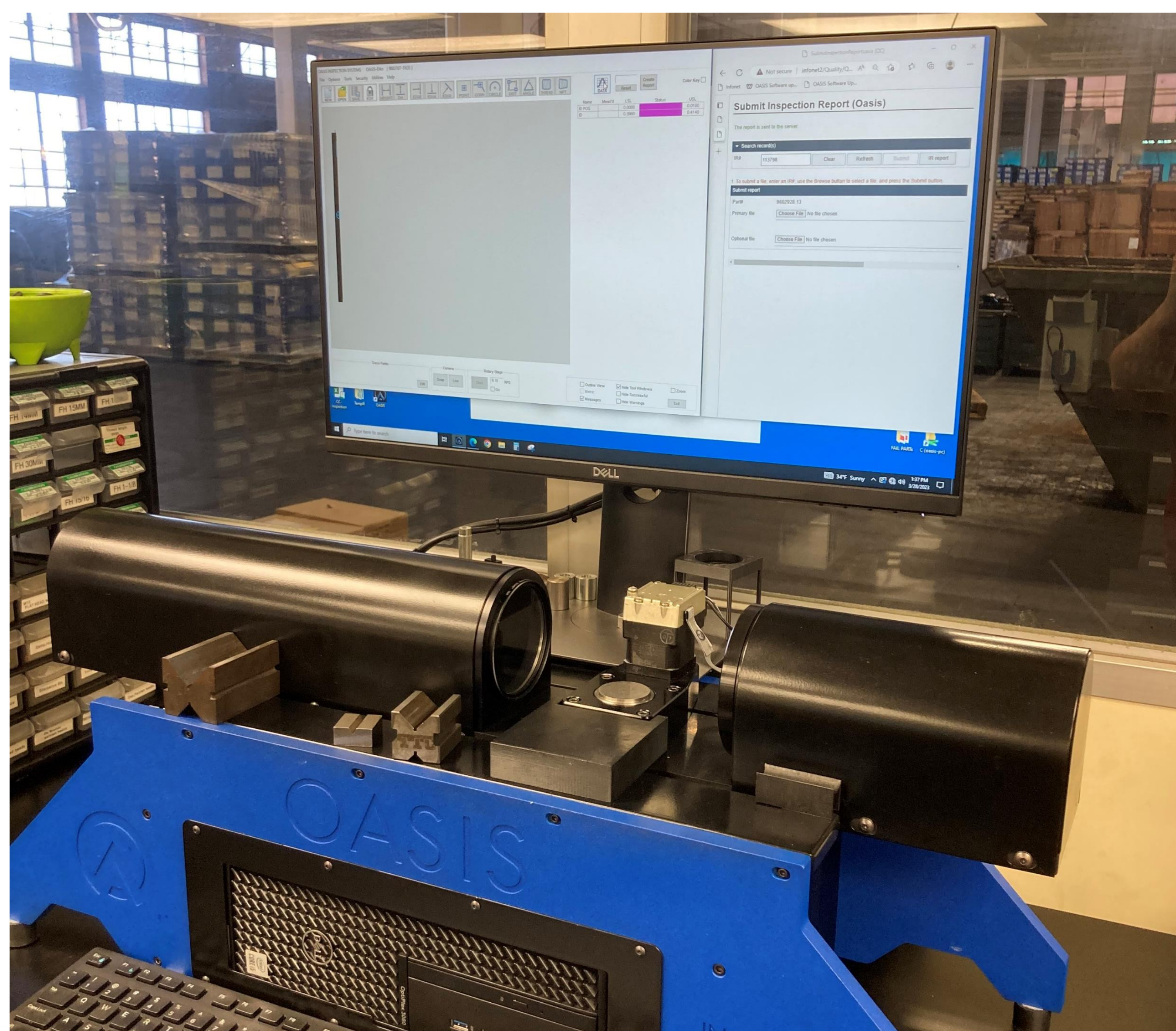


Figure 4. OASIS Visual Inspection System

SECOND CO-OP PROJECTS

- Developed and improved inspection procedures for new parts
- Learned the proper way to prepare documentation for presentation to customers
- Performed hands-on analysis of part and machine failures to determine causes
- Developed a deeper understanding of simulation software to model more complex motions

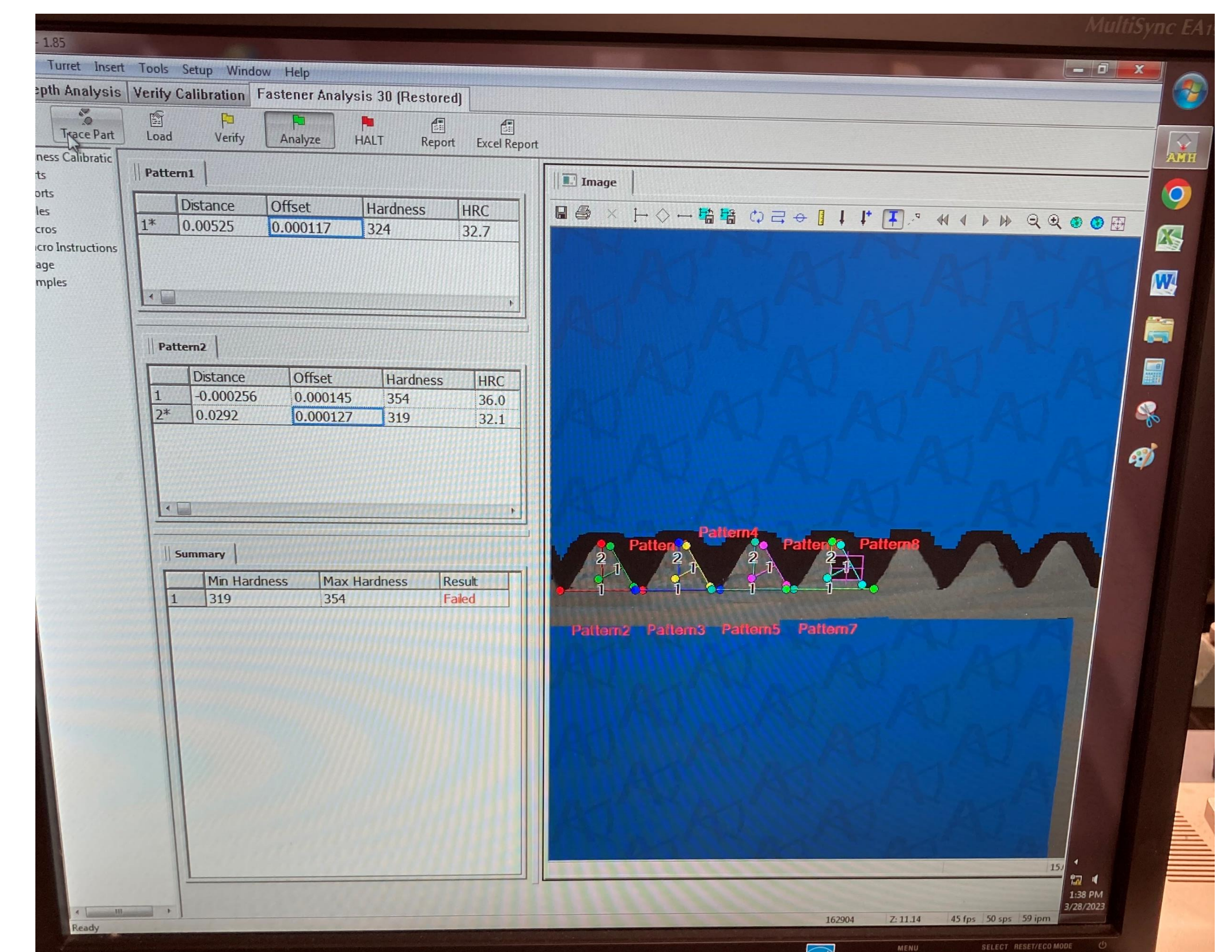


Figure 5. Case Depth inspection with Leco software

FUTURE CAREER

Hexagon Industries has done an excellent job providing a location to practice and grow my personal and professional skills. I will be beginning my professional career as a Production Engineer following graduation.

Acknowledgements

I would like to give my thanks to the Choose Ohio First Organization for all their assistance as well as my bosses Peter and Steve Jackson, as none of this would have been possible without them.