EARL RYAN **PARKER**

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Education

McMaster University
Bachelor of Electrical Engineering, CO-OP Sept 2020 - Apr 2024

• **Courses:** Electrical Engineering, Logic Design, Electromagnetics, Circuits, and Systems, Electronic Devices, Object-Oriented Programming, Data Structures, Algorithms, Microprocessor Systems, and Integrated Engineering Design Projects

Skills

Engineering/CAD	**Programming**	**General**
Autodesk Inventor	HTML/CSS/JavaScript	English & French
AutoCAD	Nodejs, Express, MongoDB	**Microsoft Office(Excel, Outlook, Word)**
Matlab	**C++, C**	3D - Printing
Revit	**Python**	Github

Professional Experience

VERN Solutions
Security System Installer Aug 2021 – Sep 2021

• Planned security installations by surveying locations, laying out equipment, and reading electrical blueprints.
• Worked with team members to deliver project requirements, develop solutions, and meet Deadlines.

No Frills
Grocery Department Supervisor Apr 2018 – Aug 2020

• Distributed daily tasks to appropriate employees and ensured all duties were completed within expected time frames.

Engineering Projects

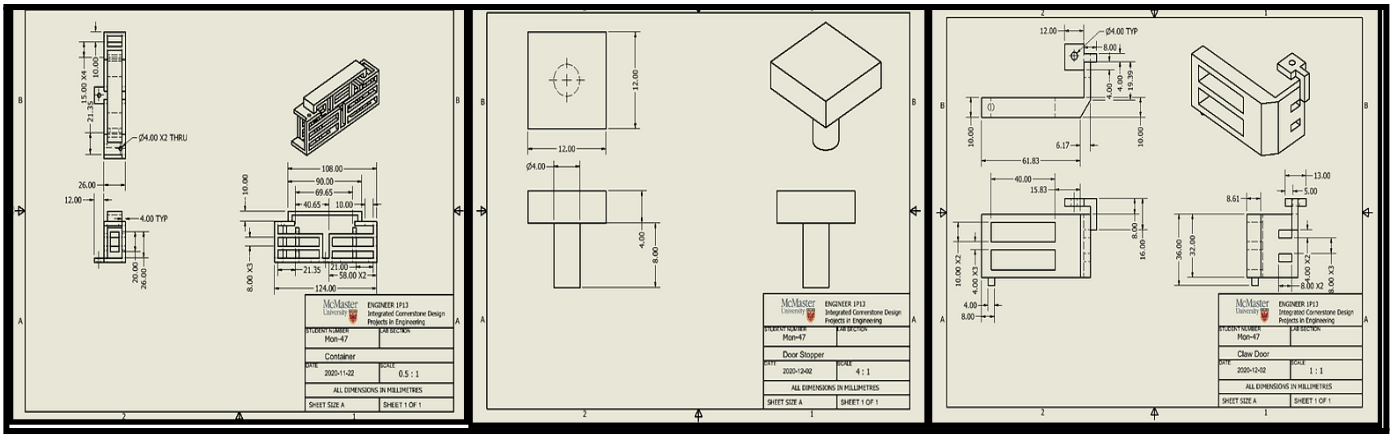
Surgical Instrument Sterilization Container
• Worked in teams to **design a system for securely transferring a surgical instrument to an autoclave for sterilization.**
• Skills applied **Computer-Aided Design, developing engineering drawings and principles of design**

Microprocessor Systems Project
• Worked independently to design a microprocessing system to control a remote control vehicle that is able to drive through a room, scan and produce a 3-D rendering of the room
• Introduced to the principles of **electrical engineering, microcontrollers, and assembly language.**

PORTFOLIO

Projects

CAD Surgical Instrument Sterilization Container

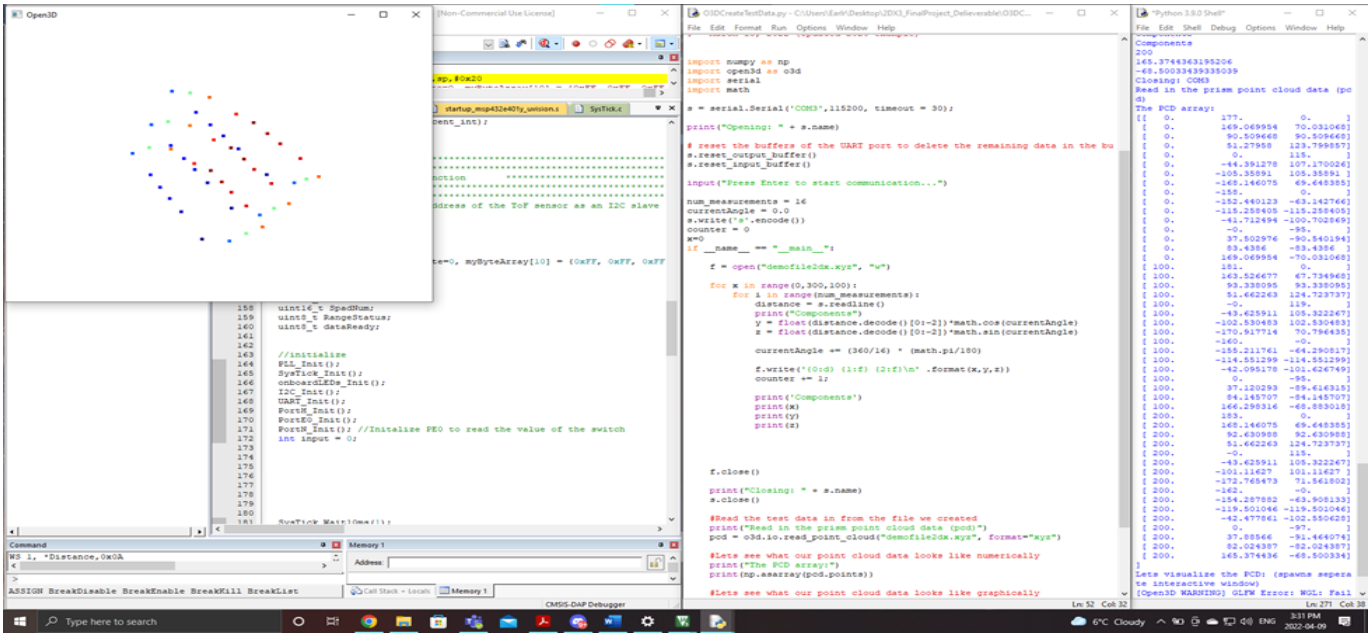


What?
•Design a system for securely transferring a surgical instrument to an autoclave for sterilization.

How?
• **Using Autodesk inventor to create a 3D model and engineering drawing**

Results
• Developed a transportation container that can securely transfer surgical tools and is compatible with an autoclave sterilization system

Spatial Mapping Using Time-of-Flight Microcontroller System



What?
•Design and build an embedded spatial measurement system using a time-of-flight sensor to acquire information about the area around you.

How?
• Using MSP432E401Y Microcontroller, C++ and Python Serial Communication
• Using a rotary mechanism to provide a 360 degree view
•Time of flight sensor to collect measurements of distance

Results
•Mapped spatial information is stored in onboard memory and later communicated to a personal computer or web application for reconstruction and graphical presentation.