

Joshua Lobe

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📍 207 Herbert St, Waterloo ON N2J1T7

🎓 Education

Mechatronics Engineering

University of Waterloo

09/2022 - Present | Waterloo, Canada

Relevant classes

- Microprocessor Systems and Interfacing
- Actuators and Power Electronics
- Sensors and Instrumentation

🔧 Design Teams

BAJA SAE Interim Electrical Lead

Lead team of 8 people, designing electrical safety system for the vehicle, and began developing hall effect based rpm sensors, utilizing CAN and machine learning to optimize differential transmission state.

WARG Electrical Team

Contributed to the Waterloo Aerial Robotics Group projects, doing basic board design, validation, and assembly.

WaterLoop Electrical Team

Worked on control systems and electrical design for competition mini Hyperloop pod.

🔗 Projects

MycroFleet

Project at Mycro Harvest

Mushroom Block Characterizer

Project at Mycro Harvest

Computer Vision Calibration Station

Project at Mycionics

MacroPad Keyboard

Personal Project based on an RP2040 microcontroller

🗣 Languages

C++ • C • Python • VHDL • KRL • MATLAB

👤 Profile

Passionate about advancing robotics innovation, I bring a strong foundation in electrical, mechanical, and software design. I thrive in both collaborative environments and independent work, leveraging communication and teamwork skills to deliver impactful solutions in cross functional teams. Proficient in industry-standard tools such as SolidWorks, OnShape, Ansys, Altium, and KiCad.

📁 Professional Experience

Mycro Harvest Inc.

Mechatronic Product Engineering Intern

09/2024 - 12/2024 | Kitchener, Canada

- Developed and tested firmware and APIs for embedded systems.
- Designed and assembled custom mechatronic systems, including automated 3D scanner and environment control system for vertical farm.
- Implemented automated controls for reliable data collection and environmental management in vertical farm.
- Collaborated with cross-functional teams integrating hardware and software solutions, ensuring seamless communication and operation between embedded systems and mechatronic components in complex automation projects.

Mycionics Inc.

Mechatronics Intern

01/2024 - 04/2024 | Putnam, Canada

- Developed internal testing and commissioning tools for state-of-the-art production setting.
- Worked closely with mechanical, electrical, and software teams to ensure seamless integration.
- Independently resolved issues, ensuring product sustainability through comprehensive documentation.

Silver Lake Camp

Kitchen Manager

05/2023 - 08/2023 | Sauble Beach, Canada

- Led a team of 3-5 kitchen staff, fostering a positive, inclusive environment and developing leadership and communication skills through effective task delegation and support.
- Managed weekly food orders and shipments, handling over 3000 pounds of food.
- Maintained a 100% pass rate for public health and Ontario Camps Association health and safety inspections.