

Kobe Barrette

Problem Solver • Analytical Thinker • Bilingual (EN/FR)

Projects

Autonomous Pathfinder

- Designed and implemented a small-scale vehicle capable of navigating a maze on its own
- Constructed electrical circuits for motor/steering control and ultrasonic sensor integration
- Developed the vehicles electrical schematics incorporating all electrical components included in the design

Arduino

Innovation Design Proposal

- Designed a concept for a pair of battery-operated roller shoes
- The shoes featured retractable wheels and a selfcharging battery via friction

Microsoft Office Suite

Contact

- 705-221-1186
- kbarre05@uoguelph.ca
- [LinkedIn](#)
- [Portfolio](#)

Accolades

Academic | Maintaining a 3.6 (83%) GPA

Certificate | Received **Mechanical Design Associate** certification from SolidWorks

Experience

Northern Ontario Wires Inc. | Engineering Research & Development (Co-op)
May 2024 – Aug 2024 | Cochrane, ON, CAN

- Local electricity distribution company responsible for delivering power to the towns of Cochrane, Iroquois Falls, and Kapuskasing.
- Studied 3-phase power as well as various powerline components including transformers, reclosers, primary/secondary conduit, etc.
- Developed AutoCAD construction drawings for new powerlines which coincided with the Utility Standards Forums (USF).

RidgeTech Automation | Control System Specialist (Co-op)
Jan 2024 - Present | Cambridge, ON, CAN

- A control system developer and consulting company having provided solutions for over **\$1 billion** worth of industrial equipment.
- Utilized AutoCAD to work with 2D building plans for high priority clients.
- Adapted an Agile Scrum framework participating in daily stand-ups, weekly demo sessions, and managing jobs using Atlassian's JIRA.
- Explored the fundamentals of ladder logic through RSLogix PLC programs.

Department of National Defence | Engineering Student Project Manager (Co-op)
May 2023 – Aug 2023 | Ottawa, ON, CAN

- Worked on the Chemical Biological Radiological Nuclear explosives Enhancement (CBRNe) project to procure advanced (**multi-million dollar**) engineering capabilities for the Canadian Special Operations Forces Command (CANSOFCOM).
- Researched complex engineering systems, some of which include night vision goggles, naval remote turret systems and autonomous explosive drones.
- Elevated engineering project management abilities through the Project Management Body of Knowledge (PMBOK).

Education

University of Guelph, 2021 | **BENG, Engineering Systems and Computing**

- Worked with function generators and oscilloscopes to characterize electronic devices, such as diodes and transistors.
- Designed circuits using logic gates for programming FPGA devices and explored logic gate designs using transistors.
- Studied the fundamentals of electricity and magnetism, as well as explored higher-order circuits which incorporated inductors and capacitors.
- Developed a voltmeter circuit and programmed a microcontroller to read and display analog voltage values on a seven-segment display.