

September 19, 2024

**MKS Instruments Inc.**

Optical Sensing Products (OSP)

Richmond, British Columbia

Dear Hiring Manager:

I am writing to express my strong interest in the *Engineering and Development* Co-op at MKS Instruments. I am a software engineering student at the University of Victoria in British Columbia. I am eager to learn and grow in the field of computer and software engineering, and I believe that this role will help me gain valuable work experience related to my interests and help me acquire a practical understanding in a real-world setting.

Throughout my academic endeavours, I have had the chance to explore and learn about many important concepts in software engineering, such as object-oriented programming, software architecture design, agile methodologies and software testing. My academic and project experiences align well with the requirements of this position:

- **Technical and Analytical Skills:** I have demonstrated technical and analytical skills by developing and testing control algorithms with RobotC. I interpreted data and applied detailed problem-solving techniques in hardware-software integration.
- **Hardware and Troubleshooting Expertise:** I have hands-on experience with lab equipment and troubleshooting, working with IR sensors, sonar systems, and motor controllers. I effectively addressed hardware issues and optimized performance through iterative testing and refinement.
- **Programming and Data Analysis:** I have utilized my programming skills in Python and MATLAB to analyze sensor data and develop automation scripts. I created robust testing frameworks to ensure the reliability and accuracy of robotic systems.
- **Project Development and Documentation:** I have managed project development from design to implementation, including creating detailed test documentation and procedures.

I am currently available for a **4-month** work term and would be open to the possibility of participating in more than one consecutive terms. Thank you for considering my application. I look forward to the possibility of speaking with you further about this role.

Most Sincerely,



**Arfaz Hossain** (He/Him)

Software Engineering Student,  
University of Victoria