

**Title:** Software Developer – Advanced Vehicle Technologies – Remote Control Systems  
**Location:** Sudbury, ON

**Scope:**

Reporting to the AVT Product Engineering Manager-Remote Control Systems, the Software Developer is responsible for the design of new fully functioning software for our Line of Sight, Teleremote and TeleOp remote control systems, maintenance of legacy systems, debug code with required documentation that meets Maclean Engineering's development goals as well as coordinating with the development team working on different layers of the infrastructure.

**Duties and Responsibilities:**

The Software Developer will have expertise in one or more of the following areas:

Desktop Application Development

Embedded Software Development using C/C ++; Python, Linux Ubuntu, Yocto SDK; ROS; EmBOS;  
CODESYS

- Design, implement and test major software features in collaboration with multi-disciplinary teams to develop new software for a variety of AVT-Remote Control products
- Define, design, and implement multi-tiered object-oriented distributed software applications
- Integrate new and existing software into new and existing machinery
- Maintain and modify existing applications
- Perform custom programming as assigned
- Debug and test software implementations

**Qualifications**

The successful candidate must be willing to learn, open-minded and flexible, organized and detail oriented, team oriented, disciplined, and must have a positive attitude, along with the following qualifications:

- Degree in Computer Science, Computer Engineering or Software Engineering or equivalent experience is required
- Master's degree would be considered an asset
- Minimum 3 years industry experience as a Software Developer is required
- Experience working in an ISO 9001 environment would be considered an asset

## Core Technical Skills

- Experience designing and developing desktop, web, and/or embedded software, particularly in distributed, industrial systems
- Strong proficiency in C and C++ with fair knowledge of the language specification
- Strong proficiency in Python, Tkinter or PyQt
- Strong proficiency in Linux Ubuntu, Yocto SDK
- Strong proficiency in ROS packages, EmBOS; CODESYS
- Strong understanding of object-oriented (OO) software development practices
- Understanding of functional programming and design patterns
- Experience with source control management, especially git
- Development experience with scripting languages (Python, shell scripting)
- Experience with Unix-based operating systems, esp. experience with Real-Time Linux
- Thorough knowledge of the standard library, STL containers, and algorithms
- Good understanding of memory management in non-garbage collected environments
- Experience with build automation and packaging software, especially Mbed

## Additional Technical Competencies that would be Considered an Asset:

- Knowledge of the C and C++ core guidelines support library
- Experience with well-known C++ open-source library
- Experience with automated testing platforms and unit, integration, and regression tests
- Experience with CI/CD tools
- Knowledge of optimisation practice and tools
- Familiarity with open-source multimedia framework
- Familiarity with computer vision and math C++ library
- Experience with GPU and parallel programming libraries
- Familiarity with embedded systems design, low-level hardware interactions
- Familiarity with arm processors and cross compile toolchains
- Working knowledge of CAN Bus, serial and ethernet protocols
- Working knowledge of real-time systems or control systems
- Familiarity with Agile software development practices, including Agile project management tools, particularly Jira
- Adequate knowledge of reading schematics and data sheets for components
- Experience in robotics and machine automation

## Core General Competencies

- Strong technical skills
- Communications skills both technically and non-technically (verbally and in writing)
- Experience in software product development
- Ability to work in a collaborative software development environment
- Ability to document the processes
- Multitasking and shifting priorities
- Adaptability
- Decision making skills and analytical skills
- Ability to prioritize and manage time effectively



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*MacLean Engineering & Marketing Co. Limited will provide accommodations to job applicants with disabilities throughout the recruitment process. If you require an accommodation, please notify us and we will work with you to meet your needs.*

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