



Job Description: NZ

POSITION TITLE: Firmware Engineer

REPORTS TO: Engineering Manager

DATE: 11/12/2017

SCOPE OF THE ROLE

The product is a high end touch screen telematics device that meets FIPS security as an accurate distance recorder.

The position entails involvement in the full life cycle of embedded development, including defining technical requirements, technical design, task estimation, development, implementation, testing, validation and deployment.

You will work collaboratively within a cross functional team paired with another engineer responsible for components of the product. You will own these components and take a high level of satisfaction of the success in global markets. The wider team has a product owner, firmware and test lead however you will be expected to contribute across all the SDLC.

You enjoy working in an Agile environment and are willing to contribute in maturing the team using the Agile principles.

RESPONSIBILITIES

- Hands on cutting robust, maintainable and scalable code with tests
- Embedded software design and development in C and C++.
- Unit testing using googletest (C++ Testing Framework) and googlemock (C++ Mocking framework).
- Automated integration and robustness testing with trip simulation
- Code inspection and peer review using GitFlow
- Supporting and creating user stories with clear acceptance criteria
- Key contributor to the agile self-managing team with a focus on quality and continuous improvement
- Assist with analysing projects from a technical perspective providing time estimates to allocated tasks.
- Follow best practise programming standards and guidelines, Version control, automated build and test processes
- Analysis and improvement of product performance / reliability and automated in-field reporting.
- As bugs are identified they need to be verified, prioritised and resolved.

COMPETENCIES

- Able to design and build well thought-out, highly reliable, stable and meticulous software.
- Solid understanding of agile development
- Testing at all levels to ensure product quality
- Understanding of real-time design constraints and considerations such as multi-threading, re-entrant code, RTOS.



PERSONAL ATTRIBUTES	<ul style="list-style-type: none">• Burning desire to work with cutting edge technologies and enjoy solving interesting technology problems• Quality obsessed with an absolute desire to ensure the customer experience is delightful and the product is robust under real-world conditions• Enjoys the challenges and responsibilities of working in a small, highly motivated and knowledgeable team.• Motivated and willing with excellent communication skills.• Able to work in a fast-paced team-oriented environment.• Ability to assimilate information rapidly
REQUIRED EXPERIENCE	<ul style="list-style-type: none">• Has a successful track record for being a member of an agile team delivering products through the entire development lifecycle.• Experience of OOP development (ideally C++, C# or Java), state machines and dependency injection or IoC.• In-depth understanding of embedded systems, architecture, development methodologies and standards.• Design and development of event driven component architectures• Automated and manual testing to meet acceptance tests for functional and non-functional (Performance, Reliability, Availability, Scalability, Security, Environmental)• Experience with using development tools such as Jira, Jenkins, GIT and maven
DESIRED EXPERIENCE	<ul style="list-style-type: none">• Test Driven Development, Behaviour Driven Development or Specification by Example experience• Analysis of big data using tools like Grafana, Sumologic to monitor and prove the product quality in production over the life of the unit and firmware releases• Experience with SQL• Experience with Freescale MQX or similar RTOS• Experience with touchscreen design and development• Experience with GPRS, Bluetooth, GPS, CAN bus, accelerometers, TCP/IP, OTAP• Experience with J1939, J1708 or OBDII vehicle protocols• Experience with the development of automotive based products• Experience with low power, high temperature industrial rated products• Experience with electronics design, manufacturing and testing

This Job Description is not intended to be complete or limiting – the role will require a proactive and flexible approach to manage tasks that support a rapid and innovative product development environment.

EROAD is in a “high growth” mode. There will be times when the role will be required to complete tasks outside those mentioned above because this role will have the relevant skills and may have higher availability than other team members.