



Job Title	System Controls Software Engineer
Location	Vancouver, BC
Reports to	Head of Controls Engineering
Date Posted	March 2021

Job Summary

As the world transitions to a renewable energy future, large-scale energy storage systems are required to bridge the gap between intervals of renewable energy production. Invinity Energy Systems, listed on the London Stock Exchange, is the leader in vanadium flow batteries, a proven technology addressing the global demand for energy storage.

Invinity is seeking a System Controls Software Engineer to join its software team, responsible for developing the software applications needed by Invinity's energy storage products. From developing cutting-edge algorithms, to developing rock-solid interfaces, this role will touch on all aspects of our system. This role seeks a candidate that has in depth experience controlling complex industrial systems with software applications. Someone who understands the necessity of robust software applications and the rigour that is required to achieve. You've developed controls systems responsible for interacting with various internal and external systems and understood how to abstract them to ensure scalability.

Responsibilities

- Develop software applications responsible for the control of Invinity's products.
- Work closely with others within Invinity responsible for architecture, electronics, and embedded firmware to define the requirements for the overall controls system.
- Create and maintain technical specifications and other internal documentation necessary to support implementation, testing, and deployment of software applications.
- Code and test applications within the overall software platform.
- Participate in design reviews and implementation code reviews.
- Create and conduct verification activities related to developed control software.
- Define the standard APIs for Invinity's products that will serve the deployment and integration with external systems (PCS, EMS, etc.).
- Provide technical support to customer operations team when required to troubleshoot field deployed systems.



- Maintain and optimize code base in accordance with Invinity's source control and configuration management policies and procedures.

Requirements

- 5+ years of experience developing software responsible for control of complex systems.
- At least two years of experience coding and debugging industrial control applications (LabVIEW or similar) for commercial or near-commercial products.
- Strong overall coding proficiency, with experience working in C, C++, C#, Python, or similar
- Knowledge and experience working in a structured software development process.
- Experience creating technical software specifications for complex systems.
- Broad understanding of APIs, software abstraction and standardization.
- Technical diploma or engineering degree in applicable engineering field (Controls, Systems, Mechatronics, Automation, etc).
- Proven self-motivation and ability to thrive in a dynamic and collaborative environment.
- Well-honed problem-solving skills, including use of structured tools.

Desirable

- Experience developing industrial control systems in energy systems such as energy storage, renewables, and power generation.
- Familiarity with Linux and cloud-based environments