



Title: Embedded Software Engineer
Reports To: Engineering Manager
Department: Engineering

Status: Exempt Full Time

Summary of Position:

This team-member will create software and firmware for new and existing products; support engineers of other disciplines in implementation and system testing and contribute to an atmosphere of creative problem-solving.

Essential Duties and Responsibilities:

- Define, write, test, and document control and monitoring for energy storage systems.
 - Firmware for embedded microprocessors in energy storage modules.
 - Software in energy storage system controllers.
- Perform root cause analysis to improve reliability and performance of existing products.
- Design, develop, and improve automated test equipment for production product testing.
- Establish and observe timelines for multiple simultaneous projects.
- Prepare detailed documentation for internal and external review.
- Perform integration, type, and demonstration testing of software/firmware functionality.
- Prepare test reports for internal and external review.
- Interface with all other team members for system design and integration.
- Observe appropriate environmental, safety and health policies and practices.
- Perform other related duties as assigned by the Engineering Manager.

Education/Experience:

- Bachelor's degree in software engineering, computer engineering, or computer science; or
- Bachelor's degree in a technical field with at least 2 years of professional experience in programming; or
- Ability to demonstrate the skills required to succeed in this role.

Required Skills:

- Proficient with development in C, C++, or Python programming language
- Proficient with version control systems such as Git.
- Demonstrated ability and desire to work effectively with others in a collaborative, inclusive, and creative environment.
- Demonstrated ability and desire to find ways to create value independently.
- Excellent written communication skills including clear and comprehensive documentation.

Preferred Skills:

- Communication protocols including CAN, RS-232, UART, I2C, SPI, Bluetooth, and WiFi.
- Experience with IEC 61850, IEC 62351
- Mixed signal design and microprocessor integration for high-reliability electronics.
- Linux or Windows operating systems for embedded development.
- RTOS and/or concurrent/multithreaded programming.
- SecDevOps practices and integrating security into software development.
- HMI/SCADA systems development.
- Agile development and team software development
- High Voltage, High Power, Grid Scale, or Automotive power electronics



		Amount of time spent			
		None	Under 1/3	1/3 to 2/3	Over 2/3
Physical Demands:	Stand		X		
	Walk		X		
	Sit			X	
	Use hands to finger, handle, or feel		X		
	Reach with hands and arms		X		
	Climb or balance	X			
	Stoop, kneel, crouch, or crawl		X		
	Talk or hear			X	
	Taste or smell	X			
	Lifting up to 40 lbs.		X		
Work Environment:	Wet or humid conditions (non-weather)	X			
	Work near moving mechanical parts		X		
	Work in high, precarious places	X			
	Fumes or airborne particles		X		
	Toxic or caustic chemicals		X		
	Outdoor weather conditions	X			
	Extreme cold (non-weather)	X			
	Extreme heat (non-weather)	X			
	Risk of electrical shock		X		
	Risk of radiation	X			
Vibration	X				

These requirements are intended to provide a general guideline regarding the nature and level of work being performed, and the qualifications required to successfully perform the job. Final assessment of a candidate's qualification versus these requirements, and the ability to accept deviations from these ideal qualifications, is left to the discretion of the hiring manager, based on business needs at the time of hire.

By signing below, I acknowledge that I have read and understand the above job description.

Employee Approval: _____ Date: _____

Management Approval: _____ Date: _____

Human Resources: _____ Date: _____