

Job Title:	Firmware Engineer Manager	Approved:	03/04/2026
Job Classification:	Salary	FLSA Status:	Exempt
Department:	Engineering	Reports To:	VP of Engineering
Location:	Vista, CA		

The Role

The Firmware Engineer Manager will lead the development of embedded software platforms for lithium-ion Battery Management Systems (BMS), including real-time firmware, Linux-based telemetry systems, and edge machine learning capabilities. The Firmware Engineer Manager will work closely with customers, product management, and cross-functional engineering teams to architect scalable embedded software platforms, define system requirements, and guide the development of firmware that manages battery safety, diagnostics, communication, and system performance. The Firmware Engineer Manager combines strong embedded software expertise with leadership and system-level thinking. Also, requires evaluating emerging technologies, working with semiconductor vendors and third-party developers, and guiding the firmware team in delivering scalable, reliable embedded systems used in demanding industrial environments.

This position provides an opportunity to shape the firmware architecture and software roadmap for Flux Power battery electronics and BMS platforms. The systems you develop will power industrial vehicles, automated material handling equipment, and airport ground support equipment, helping replace legacy fuel-powered systems with clean electric technology.

Essential Duties and Responsibilities

- Lead a team of firmware engineers developing BMS and telematic platforms for lithium-ion batteries
- Refine firmware architectures that support Flux real-time battery management, safety controls, and system diagnostics
- Lead the firmware development process for battery monitoring, protection systems, and communication interfaces
- Collaborate with electrical, mechanical, and systems engineers to ensure robust hardware-software integration
- Architect software systems running on embedded Linux platforms for telemetry and gateway functions
- Lead development and deployment of edge machine learning capabilities on battery systems
- Advance our BMS verification firmware used for validation and system characterization
- Design and maintain in-house software used by our manufacturing team
- Support engineering teams with automated validation tools and hardware test systems
- Translate product requirements into scalable firmware designs and system architectures
- Provide leadership, mentorship, and technical guidance to firmware engineering team members
- Perform other related duties as assigned.

Required Education and Skills:

- Bachelor’s degree in computer engineering, electrical engineering, computer science, or related field

- 8+ years of experience developing embedded firmware or real-time control software
- Experience leading and mentoring a team of firmware engineers
- Experience developing firmware for microcontrollers or embedded computing systems
- Experience with C/C++ embedded development
- Experience with embedded Linux systems or Linux-based embedded platforms
- Experience developing hardware validation tools or embedded test software
- Strong troubleshooting and system-level problem-solving skills
- Ability to collaborate effectively across cross-functional engineering teams
- Experience developing firmware for Battery Management Systems (BMS) or energy storage systems
- Experience designing telemetry systems or connected embedded devices
- Experience deploying machine learning models or analytics on edge devices
- Experience developing automated hardware test systems or validation tools
- Experience with embedded communication protocols (CAN, SPI, I2C, UART, Ethernet)
- Experience with real-time operating systems (RTOS)
- Experience integrating firmware with power electronics or high-current electrical systems
- Experience leading embedded software development from concept through production
- Experience in EV, robotics, aerospace, automotive, or energy storage industries

Other Duties:

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties, or responsibilities that are required of the employee for this job. Duties, responsibilities, and activities may change at any time with or without notice.