

Senior Firmware Engineer

About H2scan:

H2scan is the world leader in providing solid-state hydrogen sensors. Our sensors are considered the gold standard for improving electrical distribution reliability, optimizing measurements in refinery and petrochemical plants, and are ideal to monitor/measure hydrogen concentration in fuel cells, electrolysis, and hydrogen distribution pipelines to reduce carbon emissions. When you join our team, you will be working side by side with talented engineers, scientists, and manufacturing professionals. You will be developing exciting, cutting-edge products to enable the expansion of the Hydrogen Economy, which is a cornerstone to the planet's decarbonization. From fuel cell vehicles to hydrogen-powered appliances, the opportunities are limitless. We offer highly competitive compensation, a flexible work schedule, and a fast-paced, fun work environment.

Location: on-site (Valencia CA)

Type: Full-time

Salary: \$140,000-160,000

Reports to: Firmware Engineering Manager

Job Description:

The Senior Firmware Engineer role will bring our world-class electronics and proprietary sensors to life through implementation of robust, reliable, efficient solutions. This role also will be relied upon during design phases for new products to ensure software needs are met by the system and hardware designs. Expected to invent creative methods to meet the unique and demanding firmware needs.

Responsibilities:

- Collaborate with "Sensors Group" to design firmware solutions
- Participate in development planning and schedule creation
- Develop firmware for ARM microprocessors and custom ASICs
- Create and execute unit tests to verify functionality of modules



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- Participate in code reviews across all product categories to increase cross-team awareness and ensure quality standards are met
- Mentor junior engineers in industry standards for design and implementation
- Work with Product Managers, UX researchers, designers, and other stakeholders

Qualifications:

- Be able to articulate subject matter expertise in all of the minimum qualifications
- Bachelor's or Master's degree in Computer Engineering, Electrical Engineering, or Computer Science with embedded development experience with 9+ years experience in embedded software development or related fields
- Proven track record of delivering solutions throughout all phases of the software development life-cycle
- Experience in embedded software development
- Experience in embedded architecture
- Experience developing for RTOS environments (ThreadX/Azure RTOS, CMSIS RTX)
- Experience with embedded tools (KEIL uVision, STM CubeMX)
- Experience with peripheral communications: I2C, SPI, BLE, I²C
- Familiarity with SIL, MISRA:C, and/or ISO 26262 / IEC 61508
- Preferred: Experience writing bare-metal real-time firmware
- Preferred: Experience with communication protocols: MODBUS RTU/TCP, UART, RS485/232/422, CAN-BUS, Ethernet, 1-Wire, GPIO, MQTT

Preferred:

- Experience with collaboration tools (JIRA/Azure DevOps, Confluence, Teams)
- Excellent communication skills
- Experience collaborating closely with product, engineering, and UX teams
- Experience mentoring junior developers

Benefits:

- Health Insurance
- 401(k)
- Life insurance
- Three weeks annual accrued paid vacation
- FSA/HSA

H2scan is an Equal Opportunity Employer