
Reports to:	Senior Innovation Engineer	Department:	Engineering
Classification	Exempt	Last Updated:	9/14/2026

Job Summary:

The Embedded Systems Engineer will own and advance King Technology's new product ecosystem across both device-level firmware and cloud-connected telemetry solutions. This role serves as the bridge between physical hardware and digital services, developing firmware for microcontroller-based products while helping manage data visibility through cloud-connected dashboards and reporting tools.

The ideal candidate enjoys working across the full embedded stack, from sensors and on-device firmware to wireless communications, telemetry systems, cloud connectivity, and customer-facing dashboards. They are highly self-driven, learn quickly, and thrive in environments where ownership and initiative are expected.

Essential Functions:

- **Firmware Development:** Design, develop, test, and maintain embedded firmware in C/C++ on ARM Cortex-M, ESP32, or similar embedded platforms.
- **RTOS & Embedded Systems:** Develop and support RTOS-based or bare-metal embedded applications.
- **Sensor Integration:** Interface with sensors and peripherals using I2C, SPI, and UART communication protocols.
- **Wireless Connectivity:** Implement and support wireless technologies such as BLE, Wi-Fi, and LoRa.
- **Hardware Integration & Debugging:** Troubleshoot hardware and firmware interactions using oscilloscopes, logic analyzers, and JTAG/SWD tools.
- **Cloud & Telemetry Systems:** Support device-to-cloud communication and telemetry reporting solutions.
- **Dashboard Development:** Help develop and maintain internal and customer-facing dashboards for new product reporting and analytics.
- **Product Ownership:** Assume ownership of deployed firmware systems and contribute to the ongoing development and support of products.
- **Cross-Functional Collaboration:** Work closely with engineering, product, consultants, and external partners to deliver product enhancements.
- Other duties as assigned

Key Competencies:

High Priority

- Strong C/C++ embedded development skills.
- RTOS experience (FreeRTOS, Zephyr, or similar) or bare-metal firmware development.
- Microcontroller development experience (ARM Cortex-M, ESP32, or similar).
- Sensor integration and communication protocol experience.
- Strong troubleshooting and debugging skills.
- Ability to independently learn and understand existing codebases.

Medium Priority

- Bluetooth Low Energy (BLE).
 - Cloud-connected devices and telemetry systems.
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- Python scripting and automation.
- Hardware test equipment and debugging tools.
- Dashboard development and data visualization.

Nice to have's

- Embedded Linux.
- CAN communication.
- Advanced cloud architecture experience.

Job Qualifications:

- BS degree in Electrical Engineering, Computer Engineering, Computer Science, or related technical field.
 - 2–8 years of professional experience in embedded systems, firmware development, or related engineering roles.
 - Professional experience developing embedded software using C/C++.
 - Experience with hardware debugging tools including oscilloscopes, logic analyzers, and JTAG/SWD debugging.
 - Experience working with I2C, SPI, and UART communication protocols.
 - Wireless protocol experience (BLE, Wi-Fi, LoRa, or similar) preferred.
 - Experience supporting connected devices, telemetry systems, or IoT applications preferred.
 - Embrace and foster company values of Excellent, Selfless, Courageous, Integrity and Safety.
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