



Aprisium Pte Ltd

UEN: 202143129M

84 Toh Guan Road East, Singapore Water Exchange #03-06, Singapore 608501.

Job Description: Embedded Electronics Engineer

Position Title: Embedded Electronics Engineer

Location: Singapore (with occasional travel to customer and manufacturing sites as needed)

Reporting To: CTO

Company: Aprisium Pte. Ltd.

About Aprisium:

Aprisium is a pioneering DeepTech startup at the forefront of environmental sustainability. Our mission is to provide cutting-edge, real-time autonomous contamination detection and monitoring solutions. By leveraging IoT-enabled devices, AI-driven analytics, and advanced sensor technology, we help industries and communities optimize their processes, ensure safety, and drive profitability while reducing environmental impact.

Key Responsibilities

As an Embedded Electronics Engineer, you will play a critical role in designing, developing, and optimizing the electronic and embedded systems for Aprisium's innovative product line. Your responsibilities will include:

1. Hardware and Firmware Development:

- Design and develop embedded systems for IoT-enabled contamination detection analyzers.
- Develop schematics, PCB layouts, and circuit designs for low-power, high-performance embedded systems.
- Write and optimize firmware for microcontrollers, sensors, and communication modules (e.g., UART, I2C, SPI, BLE, Wi-Fi).

2. System Integration and Testing:

- Integrate sensors, actuators, and communication modules into embedded systems.
- Conduct rigorous testing, debugging, and validation of hardware and firmware to meet industry standards and Aprisium's quality benchmarks.
- Collaborate with cross-functional teams to ensure seamless integration of electronics with fluidics, mechanics, and cloud-based systems.

3. IoT Connectivity and Data Processing:



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- Implement protocols for real-time data acquisition and wireless communication.
- Work with cloud and edge-computing teams to ensure reliable data transmission and processing.
- Optimize power consumption and performance of IoT devices.

4. Compliance and Documentation:

- Ensure designs comply with relevant environmental and electronic standards (e.g., CE, FCC, RoHS).
- Maintain thorough documentation of designs, test results, and updates for regulatory and internal purposes.

5. Innovation and Continuous Improvement:

- Contribute to the development of next-generation IoT sensor systems, focusing on miniaturization, efficiency, and scalability.
- Stay updated with advancements in embedded systems and IoT technologies to propose innovative solutions.

Qualifications and Skills

1. Educational Background:

- Bachelor's or Master's degree in Electrical Engineering, Electronics, Embedded Systems, or a related field.

2. Technical Expertise:

- Proficiency in C/C++ programming for microcontrollers.
- Hands-on experience with embedded development tools (e.g., Keil, STM32CubeIDE, MPLAB).
- Strong understanding of analog and digital circuit design.
- Familiarity with communication protocols like I2C, SPI, UART, BLE, and Wi-Fi.
- Knowledge of power management techniques for battery-operated devices.
- Experience with sensors, ADCs/DACs, and signal conditioning.

3. Tools and Software:

- Proficiency with EDA tools for PCB design (e.g., Altium, Eagle, KiCAD).



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- Familiarity with debugging tools like oscilloscopes, logic analyzers, and emulators.
- Experience with version control systems (e.g., Git).

4. Soft Skills:

- Strong problem-solving and analytical skills.
- Ability to work collaboratively in a fast-paced startup environment.
- Excellent communication skills for coordinating with cross-functional teams.

5. Desirable Experience:

- Familiarity with IoT platforms and cloud services (e.g., AWS IoT, Azure IoT).
- Exposure to AI/ML applications in edge devices.
- Prior experience in environmental monitoring or related industries.

What We Offer

- Opportunity to work on cutting-edge technology that addresses critical global sustainability challenges.
- Dynamic and inclusive work environment with a focus on innovation and growth.
- Competitive compensation package and benefits.
- Professional development opportunities and career advancement within a rapidly scaling startup.

If you are passionate about developing impactful technologies at the intersection of sustainability and innovation, we would love to hear from you.

To Apply: Send your resume and a cover letter to [careers@aprisium.com].