



Aprisium Pte Ltd

UEN: 202143129M

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

Job Description: Design and Manufacturing Engineer – Mechatronics Build for IoT Analyzers

Position: Design and Manufacturing Engineer

Location: Singapore

Company: Aprisium Pte Ltd

Industry: Environmental Sustainability, DeepTech, IoT

About Aprisium

Aprisium is a pioneering DeepTech startup specializing in real-time, autonomous contamination detection and monitoring solutions. We leverage IoT-enabled devices, advanced sensors, and AI analytics to provide actionable insights for industries such as water, aquaculture, biochar certification, and more. Headquartered in Singapore, Aprisium is rapidly expanding its footprint across ASEAN and Europe with a commitment to fostering sustainability and driving profitability for our customers.

Role Summary

We are seeking a skilled Design and Manufacturing Engineer with expertise in mechatronics to spearhead the design, prototyping, and production of our IoT-enabled analyzers. This role demands a blend of creative problem-solving, technical expertise, and hands-on manufacturing knowledge to drive Aprisium's next-generation solutions.

Key Responsibilities

Design & Development

- Design and optimize mechatronic systems for IoT analyzers, including fluidics, electrochemical sensors, and embedded systems.
- Develop schematics, CAD models, and technical drawings for mechanical and electrical components.
- Integrate sensors, actuators, controllers, and IoT modules into robust, scalable designs.
- Collaborate with R&D teams to ensure designs meet performance specifications and regulatory compliance.

Prototyping & Testing

- Build and test prototypes to validate designs, ensuring performance, reliability, and cost-effectiveness.
- Perform simulations, stress tests, and failure mode analysis to refine designs.
- Collaborate with firmware and software teams to test hardware-software integration.

Manufacturing & Production

- Establish manufacturing processes for small-batch and large-scale production of IoT analyzers.
- Work with contract manufacturers to ensure high-quality builds and efficient production timelines.
- Lead design-for-manufacturing (DFM) and design-for-assembly (DFA) initiatives to

streamline production.

- Monitor and troubleshoot production issues, identifying areas for improvement.

Continuous Improvement

- Drive innovations in sensor integration, energy efficiency, and IoT connectivity to enhance product capabilities.
- Develop and maintain technical documentation, including BOMs, manufacturing manuals, and quality control processes.
- Implement Lean Manufacturing and Six Sigma principles to improve efficiency and reduce costs.

Cross-Functional Collaboration

- Work closely with engineering, R&D, and marketing teams to align product designs with customer needs.
- Support customer-specific customizations and provide technical expertise during deployment.

Requirements

Education & Experience

- Bachelor's/Master's degree in Mechatronics, Mechanical Engineering, Electrical Engineering, or related field.
- 5+ years of experience in designing and manufacturing mechatronic systems, preferably in IoT devices or similar products.
- Proven track record in building and scaling mechatronic devices from concept to production.

Technical Skills

- Proficiency in CAD tools (SolidWorks, AutoCAD, or equivalent) for 3D modeling and technical drawings.
- Strong understanding of fluid mechanics, sensor systems, and embedded electronics.
- Experience with IoT protocols (MQTT, HTTP, etc.) and integration of hardware with cloud platforms.
- Familiarity with PCB design and integration with mechanical components.
- Knowledge of manufacturing processes (CNC machining, 3D printing, laser cutting, etc.).

Soft Skills

- Problem-solving mindset with a focus on innovation and practicality.
- Excellent communication and collaboration skills for working in a multicultural, cross-functional environment.
- Self-starter with the ability to manage multiple projects and meet deadlines in a fast-paced startup setting.

What We Offer

- Opportunity to work on cutting-edge IoT technologies with real-world impact in environmental sustainability.
- Collaborative, inclusive, and innovative workplace culture.
- Competitive salary and benefits package, including opportunities for career growth.
- Chance to shape the future of sustainable tech in a rapidly growing startup.

If you are passionate about designing and building transformative mechatronic solutions, we'd love to hear from you. Join us in driving sustainability and innovation at Aprisium!

To Apply: Send your resume and portfolio to careers@aprisium.com with the subject line "Application: Design and Manufacturing Engineer – Mechatronics Build."