

Job Title: JD008 Electrical / Firmware Engineer

Location: Taipei, Taiwan

Employment Type: Full-time

About AilumiQ

AilumiQ is an innovative deep-tech startup focused on revolutionizing the production of advanced materials, particularly next-generation quantum dots. We are pioneering an automated microreactor platform powered by artificial intelligence to achieve unprecedented levels of precision, efficiency, and scalability in material synthesis. Our mission is to overcome the limitations of traditional manufacturing methods and unlock the full potential of quantum dot technology for various cutting-edge applications. Join our dynamic team and be part of shaping the future of advanced material production.

Job Summary

We are seeking a versatile and skilled **Electrical / Firmware Engineer** to lead the electrical design, firmware development, and integration of automation systems. This role will closely collaborate with the R&D team, combining electronics, software programming, and microfluidic design to deliver reliable and high-performance process platforms. You will be directly involved in circuit design, industrial wiring, firmware programming, and system integration, ensuring seamless operation of our advanced equipment.

Responsibilities

- **Automation System Integration:** Design and implement electrical and firmware architecture for automated equipment, ensuring system stability and reliability.
- **Industrial Wiring:** Perform wiring for control boxes, signal lines, and power modules in compliance with safety standards.
- **Firmware & Programming:** Use **Python** to develop automation control, data acquisition, and interface programs.
- **Microfluidic Design:** Support and participate in the design and integration of microfluidic flow systems.
- **BOM Management:** Generate **Bill of Materials (BOM)** and liaise with suppliers and fabrication partners.
- **Manufacturing Collaboration:** Apply basic machining knowledge (CNC, laser cutting, 3D printing) to assist in component selection and fabrication.

- **Cross-Disciplinary Collaboration:** Apply chemical knowledge to effectively communicate with chemistry and materials science teams.

Preferred Skills and Experience

- Bachelor's or Master's degree in Electrical Engineering, Electronics, Mechanical Engineering, Chemical Engineering, or a related field.
- 2+ years of experience in automation system integration, electrical design, or firmware development.
- Proficiency in industrial wiring and control box design.
- Strong programming skills in **Python** for data processing and system control.
- Ability to independently generate BOMs and coordinate with vendors/manufacturers.
- Basic knowledge of machining (CNC, laser cutting, 3D printing) is a plus.
- Familiarity with chemistry or materials-related fundamentals to support cross-team collaboration.

Benefits

At AilumiQ, we offer a comprehensive and supportive benefits package designed to empower our team members:

Statutory Benefits

- Maternity/Paternity Leave
- Family Care Leave
- Labor Insurance
- Health Insurance
- Accompanying Spouse's Maternity Leave
- Special Leave (Annual Leave)
- Parental Leave

- Menstrual Leave
- Labor Pension Fund Contribution
- Prenatal Check-up Leave
- Epidemic Prevention Leave
- Employee Health Check-up
- Weekends Off

Other Benefits

- Employee Stock Options
- Performance-Based Bonus (Year-End Bonus)
- Snack Bar & Coffee Station
- Paid Travel Leave
- Paid Sick Leave (Better than Labor Standards Act)
- Employee Training Subsidies
- Department Gatherings
- Flexible Remote/Work-From-Home Options
- Open Office Environment for Easy Team Integration

Enhanced Benefits for Full-Time Employees

- Guaranteed 14 Days of Annual Leave (pro-rated based on time of employment), encouraging work-life balance.
- Flexible Working Hours to accommodate family care needs.
- Annual External Training Budget to support continuous skill development.

- Monthly Welfare Allowance of NT\$2,000 for leisure activities (massage, beauty, dining, travel, etc.).
- Employee Laptop Subsidy and Health Check-up Subsidy.

To Apply

Please submit your resume and cover letter detailing your relevant experience in automation control, industrial wiring, or firmware development, and explain why you are interested in joining AilumiQ to **hire@ailumiq.com**.

We look forward to hearing from you.