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## Senior Electronics Engineer

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### **About ION Science Ltd:**

ION Science has over 35 years of industry experience designing, manufacturing, and supplying Photo Ionisation Detection (PID) gas sensors, gas detection instruments, and leak detectors for a wide range of industries and applications.

This is a fantastic opportunity to join our collaborative team in our new dedicated R&D technology centre and be part of a well-recognised brand associated with quality.

### **MAIN PURPOSE OF JOB:**

You will be a member of the R&D department, applying your talent for electronic design to develop and implement world leading gas sensors and gas detection instruments, that are used in Hazardous Locations (certified to ATEX and SIL).

### **REPORTING TO:**

You will report to the Engineering Manager

### **KEY RESPONSIBILITIES:**

- Architect and system level design of portable and fixed industrial gas detector hardware
- Lifecycle development of New Products using STM32 microcontroller platform
- On time completion of product developments to high standard and satisfying requirements
- Maintenance of existing designs to meet new requirements and fix bugs or obsolescence

### **JOB ROLE:**

- To develop common hardware modules that can be used for multiple products to decrease development.
- Identify emerging technologies and solutions that are relevant to our industry
- Integration of hardware and firmware
- Hardware troubleshooting, fault finding and problem solving
- To facilitate technology decision making throughout the team
- Adopt the engineering quality processes in accordance with ISO9001, ISO14001, ISO45001
- Communication and reporting to management and other stakeholders

**SKILLS:**

- Hardware design with microcontrollers including STM32, TI MSP430, Microchip AT SAM3A
- PCB Design packages – Proteus Design Suite preferred.
- Hands on prototyping of surface mount components.
- Digital design experience
- Analogue design experience such as transimpedance amplifiers, voltage regulation, and signal conditioning
- Able to read schematics and mechanical drawings.
- Working with PCBs and microcontroller programmers
- Use of standard electronics tools including surface mount soldering, multimeters and oscilloscopes
- Understanding of mechanical and software components
- Understanding of scientific principles to do with gas chemistry relevant to VOC gas sensing and detection
- Proven experience of developing products for test and production environment (DFT/DFM)
- Familiar with C, C++ for embedded development
- Familiar with FreeRTOS
- Have excellent levels of attention to detail
- Excellent at building rapport with internal departments and external customers
- Possess high levels of organisation and prioritisation skills
- Have a flexible approach and a can-do attitude
- To be able to work under pressure and meet work deadlines
- Effective and confident communicator
- IT skills including Microsoft Office packages

**EDUCATION, QUALIFICATION and EXPERIENCE:**

- Essential: Degree level qualified
- Essential: 5 years + in engineering experience
- Desirable: experience in hazardous location ATEX design and certification EN 60079-11
- Desirable: previous experience of design to SIL2 functional safety EN 61508

**BENEFITS:**

- 25 days annual leave + Bank Holidays (annual holiday increasing with service)
- Pension Scheme
- Life Assurance Scheme
- Private Medical Scheme
- Bike purchase Scheme



**SALARY:**

TBC

**WORKING PATTERN:**

Monday to Thursday: 08:30 – 17:00;

Friday 08:30 – 15:45

Full time

Permanent position

**LOCATION:**

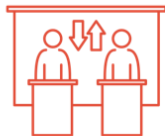
This role is based at the Ion Science head office, located in Fowlmere, 10 miles south of Cambridge.

The role is required for you to be on site.

**Our Core Values:**



**Fun**



**Embrace  
change**



**Respectful**



**Responsive**



**Challenge the  
status QUO**



**Committed**

**What our current employees say about working for ION Science:**

*“I have worked at ION Science for 8 years now and I wouldn’t want to work for anyone else! It doesn’t matter whether you are office staff or production, you are always treated with respect by everyone.” L Stanford: Senior Production Assistant*

*“I have been with ION Science for nearly 5 years now and our Company values really are integral in all we do. ION Science is fun, yet such a driven Company to work for.” E Lane: Marketing Supervisor*