



Mechatronic Engineer

Company Background:

Aquamonitrix Ltd is a portable analytical instrumentation SME located in Tullow, Co. Carlow. The company operates several divisions which includes an active R&D division focussed on bringing new environmental technologies and process analytical systems to market. The company participates in and manages national, European, and international research projects. The R&D team develops and tests novel water analyser technologies to meet needs within the marketplace. These novel analysers are deployed across the globe in various applications. Prototype systems developed within the R&D division are transferred into the New Product Development (NPD) group within the company towards production and commercial release.

Role:

A mechatronic engineer is required to work within the Aquamonitrix R&D team. The candidate will be capable of designing and developing fluidic based analytical systems. The core research and development areas in which the candidate should be competent in include LED-based optical detection, fluidic components (pump, valves, interconnects), electronic circuit fabrication and testing, and control software development and validation. Experience in working well independently, within a team, and meeting strict deadlines is an advantage.

Reporting to the Research and Development Manager, the successful candidate will work within the R&D team to deliver a truly multidisciplinary group effort.

Duties and Responsibilities:

The successful candidate will:

- Plan, execute and analyse experimental builds, ensuring product specification and project goals are met.
- Design and implement software of embedded devices and systems using C.
- Utilise and test Arduino based development systems.
- Be a self-starter with demonstrated efficient work methods, analytical & problem-solving skills, and ability to handle multiple tasks.
- Be experienced in the use of 3D CAD.
- Have an understanding of microfluidics and fluidic based systems.
- Have knowledge and experience in the use of rapid prototyping techniques such as 3D printing.
- Interface to and support the NPD division as and when necessary.
- Participate in field deployments of prototype/pilot devices.
- Attend design reviews and project technical progress meetings.

Experience and Qualifications:

- Candidates must have a primary degree in which electronic, software or mechatronic engineering is a significant component.
- Good knowledge of hardware design, micro-controllers and electronics is essential.
- Microprocessor programming, software coding and system troubleshooting/validation will also be important.
- Candidate must have a proven ability to apply a scientific approach to problem-solving, blending analytical and experimental skills to maximize equipment performance.
- The candidate should also have experience in delivery of design outputs such as detailed manufacturing drawings.
- Experience in sensor system design and fabrication would be an advantage.

Salary: Competitive

Appointment will be commensurate with qualifications and experience.

Closing Date:

Applications can be emailed to Human Resource's Manager, to include cover letter and a full CV to hr@tellab.ie