



Firmware Engineer – New Product Development

Company Background:

Aquamonitrix Ltd. is a portable analytical instrumentation SME located in Tullow, Co. Carlow. The company operates several divisions which includes active R&D and NPD (New Product Development) divisions 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 to the NPD division for full commercial development, in preparation for production release and commercial launch.

Role:

A firmware engineer for embedded product development is required capable of evolving designs from early-stage prototype through to full commercialisation. The successful candidate should be capable of interfacing to the various disciplines within the company – primarily R&D, but also Operations, Quality, Purchasing and Sales and Marketing. The core design and development areas include sensor development and networking. Experience in working well independently, within a team, managing team projects, and meeting strict deadlines is necessary.

Reporting to the NPD Manager, the successful candidate will work closely on a day-to-day basis with the other functions to deliver a truly multidisciplinary group effort.

Duties and Responsibilities:

Reporting to the NPD Manager, the successful candidate will:

- Draft/develop software requirement specifications for the discipline based on high-level market requirements.
- Deliver/support with any Proof of Concept work, focusing on any uncertain design aspects/features.
- Develop product concepts taking inputs from the multidisciplinary team.
- Develop detailed design outputs, including software code and release notes.
- Draft software test protocols as part of design verification activities, execute any testing as necessary, and produce test reports.
- Interface to and support the R&D division as & when necessary.
- Manage change control within the product lifecycle.
- Identify design improvements and value engineering opportunities.
- Participate in field deployments of prototype/pilot devices, which may include some ad-hoc travel.
- Attend design reviews and project technical progress meetings.

- Liaise with both internal and external stakeholders, including key suppliers, test houses, industry and academic partners/collaborators.
- Engage in appropriate training and development opportunities as required by Aquamonitrix.

Experience and Qualifications:

Candidates must have a primary degree in which software/firmware engineering is a significant component. Prior experience with firmware development for embedded systems (preferably STM-based) is a must – candidates without embedded experience need not apply.

In addition, any prior experience with Cloud-based solutions, IoT platforms, wireless communication technologies, database (SQL) & dashboard development and unit testing would be a strong advantage, as well as familiarity with software versioning and repository tools such as Bitbucket/Git and software bug tracking tools (e.g. Jira).

Any prior experience in developing sensors for environmental analysis, particularly in-situ monitoring, would also be a significant advantage.

Candidates will be assessed on the following competencies:

- **Discipline knowledge and design skills** – Demonstrates the ability to develop software requirements documentation based on customer/market requirements as well as software test documentation, and to develop software code for embedded products using C programming language. A working knowledge of C#, Visual Basic, Javascript, Python and .NET is advantageous.
- **Understanding the NPD Environment** – Demonstrates the ability to take a product concept or prototype to full commercialisation (transfer to production), including verification of design outputs and validation to market requirements.
- **Communicating** – Demonstrates the ability to communicate project status updates and actively participate in design reviews.
- **Managing & Leadership skills** – Demonstrates the potential to manage development projects.

Salary: Competitive

Appointment will be commensurate with qualifications and experience.

Closing Date:

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