Embedded Systems Engineer

This is a new position

Background

We are looking for a graduate, junior or intermediate embedded systems engineer to work on microcontroller based projects.

Our work is primarily around monitoring and controlling systems (SCADA) in the power, water and agriculture industries.

The successful candidate will demonstrate that they have a good understanding of embedded systems development and are capable of developing full-stack solutions for low powered solutions.

We’re happy to consider a junior who shows interest and some capability in these areas, an experienced developer, or someone in between.

Experience

An embedded system engineer must at least know the C language, which is the most commonly used programming language in the embedded world, and to a lesser degree C++.

Ideally you will have worked on architectures using different microprocessors and processors.

STM32, NXP or other ARM families, MSP430 experience would be ideal.

Arduino or PIC programming experience would be a good start.

Knowledge of common hardware interfaces would be highly beneficial e.g. SPI, I2C, UART, 1-Wire

Familiarity with serial protocols would be useful, e.g. Modbus, SDI-12,

It is important to have a strong learning ability, since the operation of a project, tests, or the realization of an architecture will often vary from one mission to another.

Finally, you should have a greater knowledge of hardware (for example electronic boards) and its operation than a typical software developer specializing in high-level programming languages (for example Java).

Qualities

The main qualities of an embedded system engineer are:

* A strong ability to analyse and understand a system, for example to be able to describe technically the requests.
* The rigor, especially to respect the defined requirements, or during the test phase.
* A great learning ability because new technologies appear regularly, so you have to be able to understand them and use them quickly.
* Be creative because the projects are diverse, but the purpose remains the same: to find a solution!