



**I.C.E. Electronics**

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## Job Description: - Embedded Software Engineer

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Date: 10-02-2023

### Reports to

The Electronics Engineer will report to the Company Director.

### Summary

This is an exciting opportunity to join a dynamic team with a range of experience. We deploy electronics into many industries and application within this role the individual will be given the chance to work on a range of solutions.

This role of Embedded Software Engineer will design and develop firmware and software solutions for the complete development life cycle of I.C.E.'s products. This will include firmware/software architecture, design, test plans and production process.

The Embedded Software Engineer may be involved at any stage of a project including the initial brief for a concept, the design and development stage, testing of prototypes and the final manufacture and implementation of a new product or system.

## Job Overview

ICE Electronics is a vibrant technology business which uses knowledge to increase the productivity of our industry's business.

We are experts in taking the analogue world in its rawest electrical form and turning it into an output. We can stop at a beautiful analogue signal or go all the way to an analysed event based online notification.

This new position is for an Embedded Software Engineer primarily focus on embedded software and firmware development across a range of platforms as required.

This is an exciting opportunity to join a dynamic team with a range of experience. We deploy electronics into many industries and application within this role the individual will be given the chance to work on a range of solutions.

Being a small company there will also be, from time to time, the need to perform roles that do not fit within this job description. It is expected that any task is completed with the utmost professionalism.

You will be expected to uphold ICE Electronics values of Quality, Transparency, Drive and Respect.

You will be required to work as part of the team on projects and autonomously as required.

You will be expected to use a wide range of electronic computer design software and target platforms as required.

Work will be at all stages of the development cycle and the requirement may be to develop firmware on evaluation platforms ahead of when prototype hardware is available.

## Responsibilities and duties

- Identify and analyse the needs of customers and to create design specifications and work proposals.
- Work with colleagues to design new systems, software architectures and develop using both existing and new technologies.
- Simulate and test theoretical designs and create technical reports.
- Identify and recommend improvements to technical performance.
- Ensure that a product will work with devices developed by others, can be made again reliably, and will perform consistently in specified operating environments.
- Conduct system evaluations and make appropriate recommendations to modify designs or repair equipment as needed.
- Ensure designs meet customer expectations.

## Qualifications and Experience

Educated to a minimum of degree level in Electronics Engineering, Software Engineering, or a closely related subject.

Ideally the candidate will have 3 years of direct industrial experience of developing embedded software across multiple platforms, be enthusiastic, self-motivated, and willing to work in a dynamic environment.

## Skills

The Electronics Engineer requires the following skills: -

- Experience designing and documenting software architectures and data/program flow - *Requirement*
- Ability to program proficiently in embedded C - *Requirement*
- Be comfortable with a range of platform complexity from bare-metal, RTOS up to more complex Linux systems – *Requirement for Bare metal and RTOS, Linux desirable*
- Ability to develop firmware for a range of processor platforms, predominantly ARM and C8051 - *Requirement*
- Ability to use a range of development environments, predominantly STMCube, Keil, Simplicity, Vivado and Eclipse. – *Requirement is for a range not all*
- Experience with a range of Integrated Circuit vendors, ideally including: -
  - STMicroelectronics – STM32
  - Texas Instruments – TM4C (ARM)
  - Nordic Semiconductors – nRF51/nRF52
  - SiLabs – C8051 range
- Ability to quickly understand new chip vendors documentation and setup new development environments - *Requirement*
- Embedded data analysis techniques - *Requirement*
- Experience with version control software (SVN, GitHub) - *Requirement*
- Ability to program in C# and use Visual Studio .net – *Desirable*
- Experience with AWS or other Cloud interfaces - *Desirable*
- Some level of PCB and circuit design - *Desirable*
- A level of ability to program in Hardware Description Language (VHDL or Verilog) - *Desirable*

## Other

- Be able to work freely in the UK

## Salary

Based on candidate qualifications and experience.

Competitive based on working within the Leeds area.