**Techcomp Research & Engineering Centre: an overview**

Techcomp Research & Engineering Centre is a growing multidisciplinary scientific and engineering product development group within Techcomp Europe Ltd.

Techcomp Europe Ltd, based in the UK, comprises of a group of European companies engaged in the design, development, manufacture and distribution of analytical systems, life science equipment and laboratory instruments with operations dating back to 1920.

The Group consists of [Edinburgh Instruments](http://www.edinst.com) (based in Livingston, Edinburgh) - a leading photonics technology manufacturer, [Froilabo](http://www.froilabo.com/home.php) - (with factories in France and Romania) specialising in Ultra Low Temperature technologies, [Precisa](http://www.precisa.com/Precisa/en/index.html) - (manufacturing in Switzerland) offering a complete range of high precision metrology and weighing solutions, Scion Instruments (manufacturing in Shanghai, California and Holland, with Product Support based in Livingston, Edinburgh) with a range of GC and GC-MS analytical systems and [Dynamica](http://www.dynamica-eu.com/) - (based in the UK) that supplies a wide range of analytical and laboratory instruments.

Products include spectrophotometers, spectrofluorometers, chromatographs, GC and GC-MS systems, precision balancers, freezers, ovens, incubators and centrifuges.

The Group products are distributed across Europe with direct support from local factories and commercial teams, throughout Asia out of distribution operations in Hong Kong and across Latin America from a dedicated office in Mexico City.  Techcomp Europe is owned by [Techcomp (Holdings) Ltd.](http://www.techcomp.com.hk/)  Ordinary shares are traded on the Stock Exchange of Hong Kong Limited (SEHK) as stock code 1298. The company employs over 800 people worldwide with manufacturing sites in China, Europe and the USA.

For more information please visit: [www.edinst.com](http://www.edinst.com)

**The Role**

**Company: Techcomp Research & Engineering Centre**

**Job Title:** **Software & Firmware Engineer**

**Reports to: Product Development Manager**

**Location: Livingston, Scotland**

**Job Purpose & key responsibilities:**

We are seeking an enthusiastic, self-motivated, experienced Software & Firmware Engineer to join our expanding R&D team within Techcomp, Scotland, UK. In this role you will contribute to the development and testing of scientific instrumentation and laboratory products. The role will require the ability to fit in well as part of a team, whilst also being capable of working independently.

The key responsibilities for this role include:

* Capturing specifications, then subsequently developing code, testing, debugging and releasing accordingly.
* Writing supporting documentation detailing code architecture, function and purpose.
* Collaboration with Electronics Design Engineers to ensure harmony of hardware and associated coding.

The role will primarily be focussed on embedded firmware (with an expectation to work on relevant software programming as required), and will provide the successful candidate with the opportunity to drive, and be responsible for the coding on designated projects.

**Technologies involved:**

A range of scientific technologies are used within the Techcomp Group products, these include; analytical instruments using Fluorescence/UV-Vis Spectroscopy, Gas Chromatography and Mass Spectroscopy, Metrology, Refrigeration, Lasers and various other specialist areas.

**Qualifications & Experience:**

Essential:

* Degree or higher in a Computer Science / Software Engineering / Electronics Engineering discipline (Candidate without formal qualifications, or with relevant science/engineering degrees who can demonstrate relevant experience will also be considered).
* Proven experience of commercial or industrial software / firmware product development to high quality standards (Minimum 3 years’ experience).
* Experience in all areas of software / firmware development – from gathering requirements and writing specifications to testing and debugging.
* Experience of writing firmware in C, within RTOS and bare metal environments.
* Knowledgeable and experienced in the use of ARM processors (STM32F series highly desirable).
* Using communications interfaces including SPI, I2C, USB and Ethernet to connect to hardware devices such as controllers, sensors and cameras
* Controlling and monitoring hardware devices including digital I/Os, ADCs, DACs, stepper motors, and temperature sensors.
* Experience of interfacing with external RAM and Flash.
* Able to read and understand the technical detail of electronic schematic diagrams, and component data sheets.
* Experience of using Source Code Management (SVN desirable) and Bug tracking tools (JIRA desirable).
* Able to work independently and as part of a team.

Desirable:

* Experienced using IAR Embedded Workbench
* Experience of C# / C++ / Python / Assembler programming languages.
* User Interface (UI) design skills using emWin.
* Broad Microsoft Windows and Linux programming.
* Good understanding of Object Oriented Design methods and patterns, including Unified Modelling Language (UML).
* Experience of data processing coding development such as; data visualisation, charting and graphics
* Knowledge in acquisition, processing, analysis and interpretation of spectroscopic data from analytical scientific instrumentation.
* Experience of working in multidiscipline technical R&D environments, collaborating with engineering or scientific colleagues.

Personal attributes:

* Excellent written and verbal communication skills, including writing of technical documents.
* Ability to work on multiple projects simultaneously.
* Detail oriented with the ability to work through complex issues with a methodical approach to solving technical problems.
* Occasional travel (including international) may be required.

**Remuneration**

**Salary -** The range for this post is £DOE plus bonus, pension and PHI.