

Job Description – Embedded Software (Firmware) Engineer

The purpose of this role is to design and write the firmware that CoolLED's cutting-edge LED illumination systems require. The successful candidate will work closely with electronic hardware and firmware engineers, focusing on bringing new capabilities to the CoolLED product range.

This position reports to our Engineering Manager.

Why join CoolLED?

CoolLED designs and manufactures cutting-edge LED illumination systems for microscopy, advancing biomedical research and other high-tech industries. There are many reasons to join the team, and here are just a few...

- **Make a difference:** We are proud of our role as a trusted supplier to leading global brands such as Olympus and Nikon and also as a pioneer of research into illumination technology in collaboration with leading universities.
- **Team spirit:** Everyone in our team contributes to the success of the company. We are seeking like-minded individuals to join us and enjoy a role which stimulates and is rewarding. Working at CoolLED, you will be a part of a family-style team who often gets together for social or charity events.
- **Being greener:** Our technology replaces toxic, energy-hungry mercury-based illumination. This emphasis on sustainability runs through the whole of CoolLED, and you can be part of our constant drive to reduce our environmental impact.

"It's fascinating to be at the forefront of technology and see how an idea is transformed into a product that brings real-world benefits to some of the most respected scientists around. You feel part of something, and your colleagues will always go out of their way to help you do your bit." Dr Isabel Goodhand

About this role

As a Firmware Engineer, you will contribute to the Engineering team's success by:

- Being an innate problem solver.
- Exhibiting a high level of ingenuity.
- Never accept the status quo.
- Being fanatical about the details.
- Confidently communicating with customers and suppliers to drive project outcomes.
- Planning your work successfully such that agreed deadlines can be met.

How will you make an impact?

By developing firmware, you will have the opportunity to design and develop the products that sit at the heart of CoolLED's business. These products are principally designed to serve

the needs of cutting-edge fluorescence microscopy, a demanding scientific arena that pushes the technological boundaries of LED-driven light sources.

As a CoolLED Engineering team member, you will be expected to bring creative solutions to the complex design problem of manufacturing market-leading light sources that sit at the technological limit of light delivery, optical precision and reliability while remaining competitively priced.

We think this position will be right for you if...

- You have a bachelor's degree in Computer Science, Electronic Engineering or similar.
- Proficient in C, C++.
- Have experience developing firmware for 32-bit microcontrollers, preferably STM32.
- Have experience with bare metal and RTOS developments.
- Have a good knowledge of IoT protocols (HTTP, HTTP(s), MQTT).
- Confident with serial communication protocols USB, UART (RS232, RS485), I2C, SPI.

Highly desirable skills.

- Knowledge of embedded Linux.
- Knowledge of digital hardware design.
- Knowledge of PC application design using C# or similar.
- Visual Studio and Visual Studio Code IDE.
- Software version control using GitHub or SVN.
- Verilog or VHDL for FPGA development.

This position is based at our headquarters in Andover. Staff are expected to be willing to travel as their role requires visiting customers, suppliers and other partners worldwide.

What CoolLED offers...

"I am able to adapt my chosen working hours around personal commitments and preferences which is so attractive. Being able to work a full week, interact effectively with my colleagues, and have a degree of freedom is fantastic!" Luther Hindley

- A positive and inclusive working environment
- A 37.5-hour working week
- Flexible working hours to optimise your work/life balance
- 25 days personal vacation + 8 statutory bank holidays
- Competitive salary plus a company profitability bonus
- Life Assurance / Death-In-Service benefits
- Contributory pension scheme
- Health Insurance (optional at cost for employee's family)
- Parent company (Judges Scientific PLC) Share Incentive Plan

If you have any questions about this role or would like to apply with your CV/resume and a covering letter, please contact us at jobs@cooled.com

CoolLED's Mission

To contribute to science by developing illumination systems that enable research and provide the technology to improve people's lives.

Our Values

Ambitious



in being the best in our industry in all aspects of the business.

Pioneering



in creating ideas to solve problems.

Fair



respecting the people and environment with/in which we work.

Committed



to adding value in everything we do for the benefit of our customers, staff, shareholders, partners and suppliers.

Supportive



in developing and retaining great people allowing them to play to their strengths.