

Job Specification

Firmware Engineer

Responsible to:	Southern Office Manager
Grade of post:	Senior
Salary:	To be agreed
Hours of work:	37 hours per week
Work location:	Blue Bear Southern Office, Amesbury

Role Purpose:

Reporting to the Southern Office Manager, you will be proactive and able to work in a fast-moving environment across a range of subjects.

You will have a varied portfolio of work dependent on the phase of the engineering lifecycle, including responsibility for derivation of requirements, programming of firmware and drivers in support of bespoke PCB designs, verification and validation at component and system level, and support to flight trials.

You will be comfortable working within different environments, covering research and development, advanced prototyping and system debug, and production. You will be able to work in a dynamic team supporting internal and external projects, collaborating with suppliers and with the Customer at their premises when required.

Your ability to adapt is therefore key to success: you will be prepared to apply your skills obliquely to solve problems, operate with an open-minded approach, and learn on-the-job where needed.

Key Responsibilities

- **Process:** Analysis of requirements, architecture definition, and structured design of firmware.
- **Production:** Development of clear and concise source code.
- **Debug:** Perform effective analysis of functional issues or performance profiling with the firmware and hardware in a test environment or target host system.
- **Rectification:** Perform system failure analysis and conduct problem solving of fielded systems.

- Life-Cycle: Utilise software and firmware development methodologies to appropriately control progression through design verification, code reviews, prototyping and product testing.
- Quality and delivery: Drive continuous process improvement to ensure timely delivery of quality firmware to the customer.

Other Duties and Responsibilities

- To actively participate in Blue Bear's Performance Management Scheme.
- To undertake such other duties and responsibilities as may be reasonably required within the grade and level of the post.
- The role will include UK travel between Blue Bear offices and customer locations, and has the potential for occasional international travel.

Equality and Diversity

We are committed to the promotion of equality of opportunity in all of our activities and to encouraging access to our organisation from all groups irrespective of the equality strands. We are working to create an environment in which cultural diversity and individual difference are positively valued in an atmosphere free from harassment and discrimination. We take our legal and moral obligations with respect to equal opportunities seriously and welcome dialogue with individuals on ways in which our equal opportunities policies and practice can be enhanced.

Health and Safety

The organisation together with the assistance of all employees are fully committed to developing a positive safety culture.

We encourage and support employees becoming involved in and participating in health, safety and welfare matters. Our goal is to motivate and empower all employees to work safely and protect their long-term health, not simply to avoid accidents.

PERSON SPECIFICATION

Knowledge and Experience	S/L	I	A
<i>Essential:</i>			
• Firmware and Drivers (primarily I2C, SPI, UART, CANBUS)	X		
• C / C++ / RTOS	X		
• Linux (primarily UBUNTU & DEBIAN)	X		
• Software Configuration Management	X		
• Software & systems lifecycles	X		
<i>Desirable:</i>			
• Python / Java	X		
• Linux UBOOT & YOCTO	X		
• Interface Protocols (e.g. PCIe / AXI)	X		
• Backplanes (e.g. VPX)	X		
• Ethernet / data transfer protocols / debug tools	X		
• SDRs / GNU Radio	X		
• Digital Signal Processing	X		
• High speed digital design	X		
• Xilinx FPGAs and toolsets including code-out from Simulink	X		
• GPU / CPLD / System-on-Chip / Soft Processors / NUC	X		
• Experience of aerospace avionics and sensors	X		
Education / Qualifications	S/L	I	A
<i>Essential:</i>			
• HNC / HND in a relevant subject	X		
• Demonstrable practical capability in all key areas		X	
<i>Desirable:</i>			
• Degree in a relevant subject	X		
• Completion of specialist courses in target areas	X		
• Health and Safety qualification	X		
Personal / Behavioural Attributes	S/L	I	A
<i>Essential:</i>			
• Self-supervising within the guidance and expectations of Southern Office Manager		X	
• Highly organised and able to work multi projects in fast paced environment		X	
• Adaptable personality with professional approach		X	
• Working as part of a team		X	
• Excellent analytical skills		X	
• Excellent verbal and written communication skills		X	
• Excellent organisational skills		X	
• Excellent problem-solving skills		X	
• Creative and innovative thinker and planner		X	
Other Requirements			
Owing to the nature of the role you will need to hold sole UK nationality	X		
Subject to security vetting to a minimum SC level and should be prepared to undertake DV clearance if required.		X	

S/L = Short Listing I= Interview A=Assessment