

# Job Specification

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## Software Test and Automation Engineer

**Responsible to:** Head of Software Engineering

**Grade of post:** Senior

**Salary:** To be agreed

**Hours of work:** 37 hours per week

**Work location:** Oakley, Bedford

### Role Purpose:

You will be required to support a mixture of R&D and product development activities within a leading autonomy and unmanned systems company. Blue Bear continuously innovates within the core area of Unmanned Aerial Systems (UAS/UAV) such as autopilots, mission systems, ground control stations, and all supporting systems and infrastructure.

You will be keen to get involved in all development areas, and have a proven track record in developing test frameworks and test cases for continuous integration (CI) and continuous development (CD).

Your role as a Test Engineer will involve designing test framework and developing an automation platform for daily / weekly test runs. You will be in-charge of the CI / CD platform that the entire team depends on. This role will be crucial in uplifting the quality of the software and has a great potential to grow into QA lead.

Working as part of a team in a multidisciplinary environment you will have good communication skills. A can-do attitude and a genuine passion for innovative technology will be advantageous. The opportunity will enable the successful candidate to gain knowledge of cutting-edge autonomous systems testing.

### Key Responsibilities

- Design and Build a sustainable test automation system for software development
- Maintain and improve the test automation framework as our products portfolio grows
- Own CI & CD processes and train other team members to use them effectively
- Test our system integrity, application developments and other processes related to our products and third-party integrations
- Maintain the code bases in git, svn and similar version control systems
- Get involved in simulation testing, flight testing and bug reporting

### **Other Duties and Responsibilities**

- To undertake such other duties and responsibilities as may be reasonably required within the grade and level of the post
- To actively participate in Blue Bear's Performance Management Scheme
- You will be expected to perform different tasks as necessitated by your evolving role within the company and the overall business objectives of the company
- Some travel within the UK may be required

### **Essential skill:**

- Expert with CI and CD tools configuration and maintenance e.g. Jenkins and Teamcity
- Experience of testing in Linux-based infrastructures
- Ability to create and maintain automated framework from scratch
- Experience with software deployment and/or orchestration frameworks e.g. Ansible
- Quality mindset to drive team for a test-driven development approach
- Knowledge of Java, C++ or C for test automation and to understand wider team's work
- Stellar troubleshooting skills with eyes to catch issues at an early stage of development
- Good communication skills for internal and external technical discussions

### **Other useful skills for this role:**

- Experience with git, svn and related code review tools
- Experience with scripting languages mainly python and shell scripting (any more will be beneficial)
- Some understanding of development tool chain for problem finding and deep diving
- Software build and integration esp. with both open source and proprietary software
- Any experience with quality standards (esp. DO-178 or similar) will benefit greatly
- Working knowledge of Jira and bug tracking tools

### **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

<b>Education/Qualifications</b>	<b>S/L</b>	<b>I</b>	<b>A</b>
<i>Desirable:</i>			
<ul style="list-style-type: none"> <li>Degree in Software Engineering or SMET discipline (e.g. Maths or Physics) with a demonstrable aptitude for Software Testing and automation</li> </ul>	<b>X</b>		
<b>Knowledge and Experience</b>			
<i>Essential:</i>			
<ul style="list-style-type: none"> <li>Software testing and continuous integration / continuous development</li> </ul>	<b>X</b>	<b>X</b>	<b>X</b>
<ul style="list-style-type: none"> <li>Linux / Unix based environment</li> </ul>	<b>X</b>	<b>X</b>	<b>X</b>
<ul style="list-style-type: none"> <li>Some experience with Java / C++ / C</li> </ul>	<b>X</b>	<b>X</b>	<b>X</b>
<ul style="list-style-type: none"> <li>Experience with software deployment / orchestration e.g. Ansible</li> </ul>	<b>X</b>	<b>X</b>	
<ul style="list-style-type: none"> <li>Troubleshooting, root cause finding and debugging skills</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Software development lifecycle – including unit and integration testing</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Refactoring and maintenance</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Regression testing (auto build and auto test frameworks)</li> </ul>	<b>X</b>	<b>X</b>	
<ul style="list-style-type: none"> <li>Technical author – test requirements, test design, test results docs</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Quality mindset with test-driven approach</li> </ul>	<b>X</b>	<b>X</b>	
<ul style="list-style-type: none"> <li>Configuration Management</li> </ul>		<b>X</b>	
<i>Desirable</i>			
<ul style="list-style-type: none"> <li>5+ years software testing and automation experience</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Experience with version control systems e.g. Git, SVN</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Experience with scripting language e.g. Python, shell scripts, bat</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Experience with Quality standards such as DO-178</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Unit and Hardware-in-the-loop testing</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Enterprise Architect or similar documentation tool</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Software building and integration with hardware</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Avionics background</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Scrum and Agile</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>JIRA – Bug tracking and Application Lifecycle Management tool</li> </ul>		<b>X</b>	
<b>Personal/Behavioral Attributes</b>			
<i>Essential:</i>			
<ul style="list-style-type: none"> <li>Good analytical and communication skills</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Passion for innovation and creative thinker</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Excellent problem-solving skills</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Team player</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Good time management skills to deliver on time</li> </ul>		<b>X</b>	
<ul style="list-style-type: none"> <li>Excellent writing and documentation skills</li> </ul>		<b>X</b>	
<b>Other Requirements</b>			
<b>Subject to security vetting to a minimum BPSS level</b>	<b>X</b>		

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