Requisition Number:	22884

Job Description.

HORIBA MIRA is a world-class, independent engineering consultancy, operating in multiple locations around the world, to support vehicle manufacturers and their supply chain with cutting-edge engineering and testing expertise

We are seeking an Autonomy Software Engineer to join a small, fast-moving team working to create advanced robot prototypes and products. For the right candidate, we offer an opportunity to help set the agenda and organize the development of our vehicle autonomy.

The ideal candidate has experience participating in vehicle autonomy or robotics design and implementation. Examples of excellent practical experience include developing software for autonomous vehicles and robots, including creating hardware-software interfaces for actuators and sensors, developing path/motion planning algorithms, and creating visualisations for sensor and autonomy decision making.

The team's engineers write software, conduct experiments, communicate results, give high-profile demonstrations and develop innovative solutions to new problems. We offer a relaxed but hardworking environment where individuals are recognised for their personal performance.

Title of Job:	Autonomy Software Engineer			
Department:	UGV			
Grade:	Up to BB4 (Depending on Skills & Experience)			
Date Required:	ASAP			
Salary Range:	Up to £55K			
Number Required:	One (1)			
Location:	Nuneaton			
Reason for Vacancy:	New job role to design and develop software for control and interaction with autonomous unmanned ground vehicles and robots			
Contract Type:	**Permanent:**	Permanent	**Contractor:**	
Responsible To:	UGV Autonomy Team Leader			
Subordinates:	None			

Main Purpose of Job
- Collaborative development of robotic autonomy algorithms capable of making robust decisions for planning and control in uncertain, dynamic environments.   - Developing efficient software for motion control, path planning, task execution, etc.   - Support prototyping of autonomous systems and validate designs through a series of purpose-designed experiments.   - Trouble-shoot complex systems from a multidisciplinary (hardware and software) perspective.   - Document work and assist with the transition of new capabilities, technologies, and prototypes into a product development environment.   - Support establishing HORIBA MIRA as the technical partner of choice for the

development of autonomous off-highway technologies.

Key Technical Skills

Essential

- Strong skills in C++ software development
- Background in robotics or autonomous vehicle software
- Excellent problem solving and communications skills
- Exposure to the full development cycle
- Comfortable using and developing for Windows and Linux

Desirable

- Experience working with hardware interfaces such as CAN and Serial
- Integration with 3rd party systems
- Working with vehicle simulations (e.g., using Unreal Engine 4)
- Visualisation of sensors and algorithms using graphics frameworks, such as OpenGL.
- Basic knowledge of UDP/TCP networking and usage of communication middleware
- Google Protocol Buffers
- Python development

Essential Qualifications	Preferred Qualifications
• A relevant engineering, science degree or equivalent	• Post graduate qualification in Software Engineering or Computer Science • Chartered status and member of a recognised professional institution

Essential Experience	Preferred Experience
• Worked as part of a team designing and implementing User Interfaces	• A senior member of, or leading, a team designing User Interfaces • UI design and implementation for Autonomous Vehicle or Robot control • Agile development processes

What is the candidate likely to be doing now?

- Designing and developing software for autonomous vehicles or robots

Other information

- Must be self-motivated, capable of working independently, innovative, demonstrable track record of delivery
- Prepared to travel within the UK and overseas, potentially involving extended periods during project delivery