Job Description.

HORIBA MIRA is a world-class, provider of Robotics and autonomous systems for use in Defence applications.

We are seeking a graduate entry 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 work in this new and exciting vehicle autonomy sector.

The ideal candidate has experience as part of their degree projects or during a summer-time placement in 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:	Graduate Autonomy Software Engineer		
Department:	UGV		
Grade:	Up to BB3		
Date Required:	ASAP		
Salary Range:	Up to £35K		
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 • Skills in C++ software development • Excellent problem solving and communications skills • Experience in using and developing in Windows or Linux Desirable • Background in robotics or autonomous vehicle software • Experience working with hardware interfaces such as CAN and Serial • Working with vehicle simulations (e.g., using Unreal Engine 4) • Basic knowledge of UDP/TCP networking • Python development

Essential Qualifications	Preferred Qualifications
• A relevant engineering, science degree or equivalent	

Essential Experience	Preferred Experience
• Design and development of C++ software	• Design and implementation for Autonomous Vehicle or Robot control • Agile development processes

What is the candidate likely to be doing now?

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