

**Requisition Number:**


## Job Description.

HORIBA MIRA is a global provider of automotive engineering, research and test services, with 75 years of experience in developing some of the world's most iconic vehicles.

Working in collaboration with vehicle manufacturers and suppliers around the world, we provide comprehensive support ranging from technology development and individual product tests through to full-vehicle design, development and build programmes.

Whilst traditionally known for our vehicle test services – including over 40 major facilities and 100km of Proving Ground – HORIBA MIRA is so much more than this. Over the last ten years, we have invested heavily in the evolution of our engineering capability and in the development of MIRA Technology Park, Europe's leading mobility R&D location for developing the latest automotive technology.

The unique combination of engineering expertise, advanced testing facilities and prime location of MIRA Technology Park in the heart of the UK automotive industry, enables customers to develop and validate their technology, or vehicle, in one place.

<b>Title of Job:</b>	Senior Engineer - Software		
<b>Department:</b>	0444 Software & Electrical Engineering		
<b>Grade:</b>	Up to 4Y		
<b>Date Required:</b>	ASAP		
<b>Salary Range:</b>	Competitive based on skills and experience		
<b>Number Required:</b>	1		
<b>Location:</b>	HORIBA MIRA Ltd., Nuneaton.		
<b>Contract Type:</b>	<b>Permanent:</b>	x	<b>Contractor:</b>
<b>Responsible To:</b>	Manager – Software & Electrical Engineering		
<b>Subordinates:</b>	None		

Main Purpose of Job
<ul style="list-style-type: none"> <li>Technical delivery of a range of projects involving Automotive systems, Hybrid electric vehicle systems and related applications, with an embedded software focus.</li> <li>To develop embedded software requirements, implementation and test solutions across a wide range of automotive and xEV related products / systems.</li> <li>To provide technical assistance to the section lead &amp; the wider team, improving the team and processes within the function group.</li> <li>Lead and contribute to a team taking accountability &amp; responsibility for delivering projects / work packages. This will include full project lifecycle from initial enquiry to delivery.</li> </ul>

Key Functions
<b>Technical Guidance:</b> <ul style="list-style-type: none"> <li>Contribute to a multi-disciplinary team to support the delivery of complex projects using a V-cycle engineering approach and following a gated engineering development process where appropriate.</li> <li>Work with the Technical Lead / Project Manager to develop and refine timing plans and monitor progress. Report concerns, plan and instigate remedial action where necessary.</li> </ul>

- Ensure verification and validation strategies are developed and applied to an appropriate standard.
- Assist safety specialists in the development of appropriate product safety cases for project activities.

#### **Engineering Functions:**

- Automotive strategy development and implementation, utilising Matlab / Simulink / Stateflow and C language.
- Use of the required non-software specific tools e.g. Visio & IBM DOORS.
- Developing safety related control systems and software to recognised standards and best practices including in accordance with ISO26262 methodologies.
- Communications interface development including vehicle networks using CAN / LIN / FlexRay protocols.
- Supporting the generation of system and software level requirements.
- Verification and Validation of controls software.
- Conducting prototype integration and testing on full scale prototype vehicles.
- Producing technical documentation, reports and specifications to support project needs.

#### **Other Functions:**

- Assist the section lead in the technical development and utilisation of the team.
- Develop team member capability, through training and the identification of stretch objectives within projects to strengthen individual technical ability.
- Assist in the development of proposals and support discussions with customers in order to generate new projects.
- Mentoring junior team members.

<b>Essential Qualifications</b>	<b>Preferred Qualifications</b>
<ul style="list-style-type: none"> <li>• Relevant engineering degree with a minimum of 2:1 or comparable qualification with relevant experience.</li> </ul>	<ul style="list-style-type: none"> <li>• Higher degree (relevant MSc, Eng. D or Ph.D.)</li> </ul>

<b>Essential Experience</b>	<b>Preferred Experience</b>
<ul style="list-style-type: none"> <li>• Matlab/Simulink/Stateflow skills for development of software control strategies and plant models</li> <li>• Demonstrable experience in working to full software V-Cycle</li> <li>• Working with requirements and contributing to requirements capture.</li> <li>• Technical knowledge of xEV powertrains.</li> <li>• MIL and HIL verification methods.</li> <li>• Understanding of vehicle network protocols (CAN, LIN)</li> <li>• Specific exposure to automotive functional safety (ISO 26262) incl. developing software for safety related applications.</li> <li>• Proficiency in C programming.</li> </ul>	<ul style="list-style-type: none"> <li>• SIL verification methods.</li> <li>• Broad understanding of Electrical and Electronic systems.</li> <li>• Broad understanding of Fuel Cell and Thermal control systems</li> <li>• Working with configuration management systems.</li> <li>• Understanding of other vehicle network protocols (FlexRay &amp; Automotive Ethernet).</li> <li>• Proficiency in C++ programming.</li> <li>• Proficiency in A-Spice</li> <li>• Proficiency in AUTOSAR</li> <li>• Experience with OTA update applications and UN ECE Reg 156</li> </ul>

**What is the candidate likely to be doing now?**

- Performing a key role at an automotive OEM, Tier 1 supplier or other related industry developing control strategies for vehicle applications.

**Other information**

The candidate should:

- Have excellent communication skills, both written and verbal, able to convey technical content to team members with differing technical ability
- Able to produce documentation to a high standard (e.g. requirements, analysis, results).
- Be a self-starter and able to execute designated tasks accurately and within timing and budget constraints
- Be IT Literate – Microsoft Office with a strong ability to learn new software tools.
- Demonstrate creative thinking and be open to new ideas
- Work well under pressure with a positive, can-do attitude
- Have well-developed analytical skills – rigorous but pragmatic
- Demonstrate ability to perform critical reviews
- Used to working in a team – adopts a collaborative and open working ethos and also demonstrates the ability to perform critical reviews
- Be willing to travel and work flexibly: The job is likely to involve periods of 1 week at a time spent overseas approximately 2 or 3 times per year. The job may also involve extended placements at customer facilities within the UK.
- Have a full UK driving license.
- Successful candidates must be able to work in the UK without restrictions and meet UK government security vetting criteria