DSE®

Job Title: Embedded Software Engineer	**Location:** Hunmanby / Mansfield
Department: Engineering	**Contract:** Permanent
Reports To: Engineering Supervisors	**Direct Reports: None**

1.0 Job Summary & Role

Join the engineering team at Deep Sea Electronics Ltd, where you'll be responsible for developing high-quality solutions for Control and Automation applications. This role focuses on the design and implementation of Functionally Safe software in accordance with recognized industry standards.

2.0 Key Responsibilities & Main Duties

- Design and implement C/C++ software for embedded devices, ensuring compliance with Functional Safety standards (IEC 61508)

- Develop, code, test, and debug system software according to technical product specifications

- Utilize version control systems and adhere to company-wide quality processes

- Prepare and maintain Functional Safety documentation, including Safety Requirement Specifications, Hazard Analysis and Risk Assessment, and FMEAs

- Collaborate with other engineering teams and stakeholders to ensure cohesive project development

- Conduct product testing and perform code reviews for peer developers

- Engage in the development of new products and the maintenance of existing ones

- Mentor less experienced engineers and actively participate in knowledge-sharing initiative

- Manage task planning and workflow progress using the JIRA tool

- Author and maintain development documentation, including specifications, test plans, and design descriptions

- Visit customer sites and attend company-provided training courses as needed

3.0 Internal & External Relationships

- Engineering Management team – communication of timescales and progress

- Test and Approvals department – the embedded engineer will work closely with the test and approvals team

- Technical Support – assist technical support with more involved customer queries, and technical authoring support

- Commercial sales team – Support during development phase and requirements gathering

4.0   Key Performance Indicators

- Attention to detail, able to work both individually as a part of a team and self-discipline required for software developing and testing
- Produce clear and concise software documentation
- High quality software development
- Ability to define and work to timescales

5.0   Essential/Desirable Factors

Knowledge	
Essential: - Expert in C/C++ - Functional safety standards, either IEC 61508 or IEC 60730 - Electrical principles	Desirable: - Other programming languages (C#, Javascript, HTMS/CSS) - Embedded Linux
Skills & Attributes	
Essential: - Familiar with stage gated / agile development approaches - Comfortable collaborating closely with electronics engineers on embedded systems - Use to work to a high-quality standards. - Excellent team player with problem-solving and trouble-shooting capabilities - Used to define a task breakdown for a give piece of work and provide estimates - Ability to translate requirements into a technical product specification - Used to work in a high-pace environment - Enthusiastic and optimistic	Desirable - Understanding of hardware
Experience	
Essential: - Functional Safety Software Development	Desirable: - Knowledge of AC systems - Low level driver development

- RTOS as well as bare metal developments. - Development of unit tested C code - Source code build tools, bug tracker tools, source code repositories, etc.	- CAN J1939 - Ethernet - RS232/RS485 - MISRA C - Cyber security
Qualifications	
Essential: - BEng or above in Electrical and Electronic Engineering	Desirable:

Created by	Dated Created
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