JOB DESCRIPTION & PERSON SPECIFICATION

Job Title: Hardware Engineer	**Location:** Hunmanby or Mansfield (Additional experience required for Mansfield)
Department: Engineering	**Contract:** Permanent
Reports To: Hardware Engineering Supervisor and Engineering Project Manager	**Direct Reports:** N/A

1.0 Job Summary & Role

The individual will work within the Engineering department located at DSE headquarters in Hunmanby (North Yorkshire) or in Mansfield (Nottinghamshire). They will perform hardware development activities on new product developments as well as maintaining the current product portfolio.

The company products operate in the Energy control and automation market and are designed to provide energy throughout a wide range of forms such as generator sets, renewable, microgrid as well as off-highway machinery.

2.0 Key Responsibilities & Main Duties

- Design and implement hardware of embedded devices and systems from requirements to production and commercial deployment.
- Design and implement analogue and digital electronic circuits
- Translate the market requirements into technical product specification.
- Design, develop and test according to the technical product specification.
- Interface with embedded design and development.
- Interface with the PC software design and development.
- Optimizing the products according to the production and sales needs.

3.0 Internal & External Relationships

- Engineering Management – take work tasks and direction from and report to
- Test and Approvals department – the hardware engineer will work closely with the test and approvals team to understand the reports and provide solutions.
- Technical Support – assist technical support with more involved customer queries, and
- technical authoring support
- Commercial sales team – Support during development phase and requirements gathering.
- Customers – Occasional customer interaction may be required in calls, meetings or traveling to visit a customer.

4.0 Key Performance Indicators

- Attention to detail, able to work both individually as a part of a team and self-discipline required for hardware developing and testing.
- High quality hardware development minimising the number iterations.
- Ability to work against timescales and deliver the hardware with the expected quality on time.

5.0 Essential/Desirable Factors

Knowledge	
Essential: - CAD design tools - Analogue and digital design - Embedded system design - EMC principles	Desirable: - Knowledge of C - Electrical theory -
Skills & Attributes	
Essential: - Comfortable collaborating closely with electronics engineers on embedded systems - Used to working to high-quality standards. - Excellent team player with problem-solving and trouble-shooting capabilities - Used to defining a task breakdowns for a give piece of work and providing estimates. - Ability to translate requirements into a technical product specification. - Good communication skills and ability to concisely discuss product development issues within team of engineers from many different specialities. - Enthusiastic and optimistic. - Adaptable to changing requirements	Desirable: - Understanding of embedded software - Familiar with stage gated / agile development approaches. - Used to working in a high-paced environment. -
Experience	
Essential: - H/W design with good knowledge of general embedded industrial controller design - Experience of analogue hardware design including signal conditioning / processing. - Good knowledge and experience with Micro controller based hardware design including peripherals and power supplies	Desirable: - Experience in designing test equipment to enable specific testing of unique product features. - Knowledge of Cadstar - Knowledge of Altium - Working knowledge & understanding of PCB design & layout requirements particularly with respect to EMC

as well as external high speed bus interfaces. - Experience in design using discrete components to create specific solutions as well as use of highly integrated chip solutions. - Good working knowledge of Schematic capture S/W - EMC Design, thorough understanding & experience designing for EMC compatibility for emissions and immunity within and industrial situation. -	- Analogue sensor interfacing & interfaces to monitor external sensors, both analogue & digital. - Creating EN safety reports - Good knowledge and experience with wide variety of serial communication systems. -
Qualifications	
Essential: BEng in Electrical Engineering or equivalent	Desirable: MEng in Electrical Engineering or equivalent

Created by	Dated Created
Derek Hand / Hardware Engineering Supervisor	26/04/22