Job Title: Test & Approvals Engineer	**Location: Hunmanby, UK** **Mansfield, UK**
Department: Test and Approvals	**Contract: Permanent**
Reports To: The Test & Approvals Department Manager	**Direct Reports: N/A**

1.0 Job Summary & Role

The individual will work within the Test and Approvals department located at DSE headquarters in Hunmanby, North Yorkshire or at our development office in Mansfield, Nottingham.

They will perform test applications development and functional testing needed for the verification and validation activities at a product and system level on new and existing product developments ensuring high-quality products are built by the company.

2.0 Key Responsibilities & Main Duties

- Develop and maintain internal applications, procedures and techniques for verification and validation testing
- Write and execute CodeSYS applications and plans for the testing of the Off-Highway products as part of new product development and release process
- Develop and maintain HIL / SIL systems for features and regression testing
- Setup test apparatus, including wiring and rewiring of test looms
- Complete test and issue reports as part of testing in a controlled manner.
- Utilise existing and contribute to the development new testing tools.
- Communicate and maintain timing records for time spent on projects.
- Make use of the company documentation, version control system and issue management systems to record findings in a controller manner.
- Obtain product knowledge and assist with new product specification.
- Other ad hoc duties as and when required.

3.0   Internal & External Relationships

Engineering department – the Test and Approvals engineer will work closely with the software development team whilst testing the products and to communicate the detail of the results.

Engineering management – the Test and Approvals engineer will be an authority on product applications and will advise the engineering management team on product design.

Technical Support – assist technical support with more involved customer queries.

4.0   Key Performance Indicators

- Excellent CodeSYS applications development for testing purposes
- Excellent LabView applications development and experience using NI hardware
- Attention to detail, patience and self-discipline required for software testing.
- Consistently using positive working and communication practices to contribute to
  software quality, verification and validation.

5.0   Essential/Desirable Factors

Knowledge	
Essential: • A solid level of CodeSYS applications development • A good level of understanding of final applications, testing methodologies and software product development lifecycles.	**Desirable**: • Good knowledge of the C++ programming language • Qt GUI development tool • High level of knowledge for LabView application development
Skills & Attributes	
Essential: • Good understanding of the CAN communication protocol and J1939 standard	**Desirable:** • PLC programming in structured text • OpenCAN protocol

• Prolific with standard engineering test and measurement tools like: multimeters, current and voltage generators, frequency generators, oscilloscopes, CAN Simulators. • Development of software test plans to capture issues at first test • Attention to detail, patience and self-discipline • An open attitude for learning and continuous skills development • Able to perform tasks on its own or as part of a team. Teamwork is essential • Good understating and usage of the Microsoft Office package	• ModBus over TCP/IP • Operation of the ECU controlled engines

Experience	
Essential:	**Desirable:**
• Proven experience in application development using the CodeSYS platform or similar • Experience in development and running of HIL systems	• Application development experience for the automotive or off-highway sectors • Proven experience in a software development environment and/or a software test role. • Experience in development and running of HIL systems using NI hardware and LabView applications

Qualifications	
Essential:	**Desirable:**
• HNC / HND / Bachelor's degree level qualification or equivalent in electronic engineering, automation engineering or related field	

Created by	Dated Created
T&A Department Manager	7/11/2022

This information has been discussed and agreed with the new employee as part of the onboarding process:

Job Holder

Signature   **Print Name**   **Date**

Line Manager

Signature   **Print Name**   **Date**