Job title:
Systems Engineer

Location:
Fareham, Hampshire

Reports directly to:
Project Manager

Reports functionally to:
Design Lead

Strategic business unit:
Meggitt Sensing Systems is a leading supplier of high-performance sensing, monitoring, power and motion systems.

Meggitt Sensing Systems specialises in designing products to operate under harsh and demanding conditions. Our systems are used in a diverse range of markets and applications, from aircraft and space launchers to gas turbines and heart monitors. This requires Meggitt's smart engineering for extreme environments.

Product groups include Avionics, Inertial Sensing & Ignition, Performance Sensing, Power & Motion and Sensing & monitoring.

Meggitt Sensing Systems' organisation is based on product value streams – groups of products with similar technologies or applications providing customers with more integrated solutions and comprehensive through-life support. Engineering and manufacturing is located in Denmark, France, Switzerland, UK, USA and Vietnam. Our sales and support network extends across North and South America, Asia and Europe.

Purpose:
Develop and implement structured engineering solutions to meet programme requirements across the whole development lifecycle in accordance with legislation, customer requirements, human factors, and business needs. Working in accordance with and delivering against agreed technical, quality, cost and schedule requirements.

Specific responsibilities:
- Prepare and manage system requirements and design specifications following analysis of customer requirements in accordance with legislation, human factors and business needs.
- Conduct of Trade Studies to determine optimum system hardware and software architectures.
- Prepare Requirements Specifications for each hardware or software Configuration Item identified within the chosen architecture
- Prepare system test plans to validate and verify system requirements at minimum life cycle cost
- Conduct Validation and Verification Activities as required to secure product acceptance
- Prepare Declarations of Design and Performance.

Responsibilities:
- Capture and define requirements through a disciplined and rigorous approach to requirements engineering and ask challenging questions about the requirements to ensure understanding
- Construct and implement embedded engineering solutions including detailed design, contribution to technical reviews and performance optimisation.
- Plan and document system verification including, system tests, development tests, unit tests, component tests, integration tests, regression tests, stress tests, acceptance tests, qualification tests and flight tests as appropriate.
- Generate work products conforming to all aspects of technical and quality requirements by following robust configuration control, review and change management processes
- Assist in the compilation of plans, estimates, task lists and risk management plans in support of programme objectives, project estimates and bids
- Work with customers, other engineering disciplines and other internal departments across the whole development process and respond to their requests in a timely and professional manner at both Meggitt Avionics' and customers' premises as required
- Perform internal project activities and work with external sub-contract organisations, whilst maintaining focus on achieving goals with a positive can-do attitude

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- Contribute to continual process improvement, in support of the company business and strategic objectives
- Undertake any other engineering related tasks commensurate with this post as required.

Primary working relationships & interfaces:
The systems engineer works within multi-functional teams. They will be required to work closely with software, hardware, and mechanical engineers as well as quality assurance and safety. Technical direction will come from the design lead and priorities agreed with the Project Manager.

Key skills and competencies required:
Engineering degree with a systems engineering leaning
Experience in a similar role is essential
Experience of capturing and analysing system requirements and of validating and verifying that the system that has been produced as a result meets the original specification
Experience of hardware and software architectures within single-box systems
Experience of hardware and software design processes
Ability along with experience of write integration and verification plans, define detailed test procedures and perform systems verification activities.
Experience of design for safety in Civil Airborne Systems and Equipment
Knowledge of current Systems Engineering standards and techniques particularly with respect to flight certified civil airborne systems
Ability to challenge requirements and architecture of systems confidently

Desirable skills:
Aircraft equipment design experience
Awareness of aircraft certification requirements
Awareness of how different parts of the aircraft interface with each other and how they use the information
Experience of facilitating trade-offs between hardware and software and capable of partitioning equipment requirements into hardware and software elements
Experience of mathematical and graphical modelling

Other
Prepared to travel to the USA or Europe not normally more than four times per year and prepared to undertake limited travel within the UK. Prepared to work overtime.

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