JOB DESCRIPTION

Mechanical Design Engineer

Overview

Whether it's industrial embedded computing, custom lithium battery packs, secure communication systems, antennas, or imaging technology we design, manufacture and supply it.

From the ocean floor to the edge of space, Steatite innovation is making sure that vital technology operates consistently, reliably, and above all safely, around the clock.

Our products can be found gathering scientific insight in the cold and crushing depths at the ocean floor, transmitting high bandwidth data across hostile terrain, processing colossal amounts of traffic data, and enabling secure ticket sales on board a train.

From the first day of your employment with us, you will be part of an organisation that strives to make your work rewarding and cares for your safety and wellbeing every day.

Reporting directly to the Head of Systems Engineering, this exciting position is for an experienced Mechanical Design Engineer with a Defence, Industrial or Aerospace background. Working as a key member of the Systems Engineering Team you will be responsible for the mechanical design of solutions from the ground up, producing high quality CAD models / technical drawings and working with other departments as necessary throughout the design and development phase from concept to implementation.

You will have the opportunity to put your knowledge and mechanical / electromechanical engineering experience to good use, designing hardware that is both fit for purpose and of the highest quality to meet extensive customer requirements on high profile projects.

This is an important position in a new team; as well as working on projects from a mechanical design perspective, there is also the potential to have direct input to the tailoring of internal processes and systems that will be developed as the Systems Engineering team grows.

Summary Details

Job Type:	Site based
Job Title:	Mechanical Design Engineer
Location:	Redditch, Worcestershire
Hours:	38 hours per week, Monday - Friday
Salary Package:	Competitive
Benefits	25 days holiday plus bank holidays, increasing to 28 days with length of service.

	Annual Discretionary Bonus Salary sacrifice pension 3-month notice period after probationary period Access to Westfield Healthcare scheme, including: • Corporate Health Cash Plan • Employee Assistance program • Wellbeing App • Discount scheme Cycle to Work Scheme Enrolled in Employee Share Scheme after 12 months
Qualifications	Mechanical Engineering Degree or equivalent, or significant relevant experience

The type of person we are looking for:

- Good attention to detail, conscientious, and takes pride in work output.
- Able to work as part of a team as well as on own initiative.
- Having a flexible and adaptable approach
- Curious - inquisitive and open minded, seeks out evolving and innovative ways to add value.
- Collaborative - Able to work effectively and inclusively with a range of people.
- Driven to deliver - Determined and resourceful to deliver the best results for the business.
- Seeks learning and development opportunities - Takes the opportunity to acquire, the knowledge, skills and behaviours to be fully competent in job role.
- Fully conversant with Microsoft Office Suite
- Due to the nature of the work carried out, all applicants must be eligible for SC Clearance

The Role

This role encompasses the following responsibilities:

- Utilising your mechanical / electromechanical engineering experience, you will use your 3D CAD design experience to contribute to the innovation and quality of new products within the Systems Engineering Team
- Designing products for harsh environments – i.e. shock, vibration, thermal extremes – working knowledge of Military Specifications and Standards ideal
- Evaluate and interpret project technical requirements from a mechanical design perspective to develop concept designs.

- Full detailed 3D modelling / design of components and assemblies incorporating sheet metalwork, machined parts, electrical / electronic and COTS components using SolidWorks.
- Performing FEA / simulation on CAD models where required, prior to physical testing (shock, vibration, and thermal considerations)
- Production of high quality, detailed technical drawings for components, sub-assemblies, and top-level parts
- Support key milestone events such as Design Reviews, both internal and customer facing
- Documentation – supporting other areas with mechanical design information as required.
- Implementing Engineering Change Notes to update drawings.
- Assisting with the specifying of components and identifying material specifications for supporting design documentation
- Provide support, as required, to the Purchasing/Supply Chain
- Work with ~~s~~suppliers and manufacturers; maintaining strong working relationships.
- Any other duties as the business may require within your capabilities.

Key Competencies

- Competent at authoring complex CAD models, drawings and assemblies using SolidWorks CAD tool. Ideally competent at analysis and understands Finite Element Analysis and Computational Fluid Dynamics
- Competent at creating drawings, all dimensioning, applying linear and geometric tolerances.
- Knowledge and understanding of Mechanical Engineering fundamentals, processes, and standards.
- Thorough understanding of Design for Manufacturability and Design for Assembly
- Understands the mechanical aspects of working with designs containing connector systems, harnesses, PCBs, and mechanical design for EMC.
- Understanding of electrical wiring and schematics
- Understanding of designing for longevity and useability / through-life support, for example consideration of Human Factors and Integrated Logistics Support requirements
- Understand the need for configuration control, change management and security marking aspects of all types of documentation and drawings.
- Experienced in managing own work and able to prioritise tasks to meet milestones.
- Knowledge of Project, Systems Engineering and Business lifecycles, with an understanding of Engineering activities at each stage of the lifecycle
- Knowledge and understanding of Mechanical Engineering fundamentals, processes, and standards.

- Thorough understanding of Design for Manufacturability and Design for Assembly
- Experienced in managing own work and able to prioritise tasks to meet milestones.

Useful Additional Expertise

The following are advantageous but not essential:

- Knowledge of EU/UK safety and CE regulations