

JOB DESCRIPTION

Job Role	Senior/Principal Mechanical Design Engineer
Location	Lutterworth, Leicestershire (with potential requirement for periods of offsite working within the UK)
Reports To	Engineering Director
The Company	
<p>Hypermotive are a well-respected and dynamic engineering and manufacturing business, focussed on the e-mobility transport. Hypermotive specialise in the design and tier 1 manufacture of high and low voltage power distribution systems and wiring harnesses for sectors including automotive, motorsport, commercial vehicle, rail, marine and aerospace. We are also recognised as one of Europe's most experienced hydrogen fuel cell system integrators.</p> <p>Joining Hypermotive would make you a key part of a highly experienced, engaged and dedicated team - delivering a wide range of projects at the cutting edge of e-mobility and zero-emissions technology.</p>	
The Role	
<p>A key member of the Hypermotive Mechanical Engineering team, the Mechanical Design Engineer will be responsible for the design, development and delivery of the overall mechanical design of low voltage (LV) and high voltage (HV) electrical systems and e-mobility solutions for both vehicle systems and test rig hardware.</p> <p>You will work across a range of sectors (including commercial vehicle, marine, off-highway and rail), focussed on the development and integration of energy storage, conversion, and distribution systems. Your input will directly contribute not only to the successful delivery of the project and support the success and growth of the business but also pioneer the decarbonisation of transport and other energy intensive technologies.</p> <p>Within this role, you will be responsible for all aspects of the mechanical system / subsystem specification and design across the whole engineering V-cycle. This will include:</p> <ul style="list-style-type: none"> • Supporting generation of requirements from the customer's brief and all relevant standards • Generation of mechanical layouts • 3D CAD modelling of mechanical, electrical and electronics systems • 3D packaging of mechanical systems into vehicles and enclosures • Creation of 2D manufacturing drawings and exploded general assembly drawings • BOM generation and management • Component selection and supporting sourcing including technical discussions with manufacturers • Design verification and validation including assessment and simulation of operational environmental factors such as stress, vibration, thermal, ingress protection • Quality assessment and inspection of prototype custom components against design • Supporting prototype builds • Generation of build / assembly instructions • Design for production (DfMA etc) 	

You will work closely with the other functions within the design team and with the manufacturing team to ensure right first time, on time delivery of the project within budget. You will support design review, team, supplier and customer meetings as required and seek to resolve any issue assigned to you in a timely manner.

Education and Skills Requirements

Educated to degree level in mechanical engineering or other relevant discipline
5+ years' experience in relevant role and industry

Skills & Experience Required:

- Experience in designing transport mechanical systems
- Working knowledge of the relevant design standards for mechanical system design and manufacture applied to the above.
- Experienced in designing production intent product including use of tools such as DFMEA, PFMEA and DfM.
- Experienced user of 3D CAD package; Hypermotive uses Solidworks
- Competent in generating 2D manufacturing drawings
- Experience in the mechanical design and packaging of HV and LV electrical systems, ideally across both mobile and static enclosure-based systems
- Working knowledge of GDT
- Technical design presentations to internal and external stakeholders

Skills preferred:

- Electro-mechanical design system design in above advised applications
- Knowledge of manufacturing methods including sheet metal, machining and casting.
- Knowledge of common engineering materials and their selection
- Thermal management design in electronic systems
- Experience in rack-mounted or enclosure-based systems
- Experience of mechanical component sourcing and a strong supplier database
- Experience in the mechanical design of energy storage/delivery systems such as batteries, supercaps or fuel cells

Personal attributes:

- Flexible attitude
- Team player
- Self-motivated
- Proactive approach to work
- Able to multi-task across several projects at one time

Hypermotive can offer:

- Interesting, varied and challenging work
- Good rates of pay and generous holidays
- Wide range of projects across multiple sectors
- Highly flexible working arrangements
- Pension, healthcare scheme and other benefits