



DRIVING THE FUTURE OF ELECTRIC VEHICLES

We are the world leader of in-wheel motors for passenger cars, light commercial vehicles and future transport solutions.

Protean Electric is an automotive technology firm with around 150 talented people globally.

Our purpose is to make electric vehicles better, for the people who use them and for a sustainable world. Our mission is to make in-wheel motors a standard automotive product, used by customers worldwide.

Senior Mechanical Design Engineer Farnham, UK

The Role

We are seeking the right individual to join our Mechanical Design Team.

Main Duties & Responsibilities

The Senior Mechanical Design Engineer's primary duty is the design, development and implementation of mechanical and electromechanical systems for the in-wheel motor. As part of the Mechanical Design team, the Senior Mechanical Design Engineer will collaborate throughout all levels and departments of the business to ensure comprehensive delivery of projects and key milestones. They will also ensure designs are well communicated, as well as supporting and mentoring the other members of the team.

Reporting, Location & Travel

The role is full-time and based out of Farnham, Surrey, reporting to the Mechanical Design Manager. Flexible working possible. Some international travel to Europe, US and China possible.

Key Responsibilities

- Creating and refining mechanical and electromechanical parts and assemblies, as well as drawings to capture design intent and key characteristics
- Performing hand calculations and/or finite element analyses of dynamic and static systems, to validate a design
- Discussing and resolving technically complex problems with manufacturers, suppliers, customers and within the business
- Preparing and presenting designs for review to pass through a gated development process
- Producing feasibility studies with accompanying designs based on sound engineering principles and analysis, as well as considerations for cost, performance, safety and time
- Estimating and managing the delivery of tasks and projects to associated timelines

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- Interfacing between Electronics and Mechanical Design teams to integrate electronic assemblies into the mechanical envelope
- Liaising with suppliers regarding design manufacture, cost, tooling, quality and availability
- Producing engineering reports and presenting findings to the business
- Providing technical support and expertise to other departments as and when required
- Supporting DFMEA activities
- Checking and producing Engineering drawings for conformance to BS8888
- Contributing to improve training, processes and team requirements, including the development and growth of all mechanical engineering talent across the business
- Supporting the production line during snagging when deploying a new design
- Supporting the validation team with design of tests and interpretation of results
- Providing regular updates to the engineering team of progress and issues

Relevant Skills & Behaviours

Our values:

- **Will to Win:** we succeed by delivering to customers; on time, on quality and on cost
- **Pioneering:** we are passionate about the technology
- **Courageous:** we face our challenges
- **Working Together:** we can rely on each other and others can rely on us
- **Personally Responsible:** we do what needs doing, when it needs doing
- **With Integrity:** we are honest, open and respectful

Successful candidates should be able to demonstrate the following relevant skills and behaviours:

- Creative and innovative through design
- Sound knowledge of physics and mechanical engineering theory
- Development and analysis of engineering solutions
- Desire to develop in a fast-paced and dynamic environment
- Knowledge and application of product design processes
- Create, communicate and present technical reviews and documentation
- Work and communicate throughout a multi-national business
- Self-motivate and work with a high level of autonomy
- PC literate (Microsoft Apps, CAD, Cloud based systems, etc)
- Excellent time management and task organisation
- Knowledge of codes of conduct and ethical working

Relevant Knowledge & Experience

Candidates should assess their suitability against the following essential and/or desirable relevant knowledge and experience:

Essential:

- Bachelor's degree (or equivalent) in relevant engineering field
- Applicable mechanical/electromechanical engineering experience
- Utilisation of hand calculations and input from FEA in design
- Extensive utilisation of CAD and PLM systems (e.g. SolidWorks & EPDM)
- Production and modification of components and assembly drawings in accordance with BS 8888, with detailed application of GD&T
- Component testing and design of tests in accordance with relevant standards and requirements
- Designing with and combining various materials and manufacturing techniques



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Desirable:

- Master's degree in relevant engineering field
- Chartered status with a recognised engineering body
- Knowledge and application of using advanced FEA/CFD simulation tools
- OEM/Tier 1 experience with vehicle systems/assemblies
- Development of designs for prototype, low and high-volume applications
- Using technologies such as injection moulding, fretwork, PCB and flexible circuit design
- High power electric and hybrid powertrains experience
- Automotive traction batteries and motors experience
- Design experience based on ISO26262
- Design experience based on ASPICE ME

Employee Benefits

In return for a rewarding and fulfilling career, all Employees can look forward to receiving a competitive salary, plus a number of additional employee benefits:

- **Discretionary Bonus:** Employees are eligible to receive a discretionary bonus of up to 15% of annual salary; this is paid annually and is subject to meeting set agreed targets.
- **Life Assurance:** Employees are automatically enrolled into the company's Life Assurance scheme; this provides the sum of four times annual basic salary in the event of death during employment.
- **Pension Scheme:** Employees are automatically enrolled into the Company's Group Personal Pension Scheme, with the company matching contributions from a minimum of 5% up to a maximum of 7%.
- **Private Healthcare:** subject to completion of probation, Employees, their partners and dependents, are able to join the company's private healthcare scheme with BUPA, in addition to an accompanying cash plan with BHSF.
- **Learning & Development:** Employees are encouraged to continue their career development with a variety of training courses and development opportunities available to them, including the offer of learning Mandarin.
- **Relocation:** we are able to offer a relocation package to assist Employees and their families when relocating to within a designated distance/duration from the company's offices.

Full details of the Employee Benefits are available upon request, or will be made available on provision of an offer of employment.

Should you wish to apply for this role, **please e-mail your CV, covering letter and salary expectations** to: ukjobs@proteanelectric.com – please be sure to **quote the full Job Title in the subject line** and read our Privacy Notice.

Thank you for your interest, we wish you every success with your application.

