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 over 100 talented people globally. Our mission is to drive sustainable transport through innovation, and we are the imagination behind vehicles that travel further, perform better and use fewer components.

We believe that freedom of ideas, integrity of response, desire to improve, and collaborative thinking drive innovation. Joining Protean means working with talented experts across the organisation who value your ideas, empower you to make a difference, and encourage you to challenge yourself and others.

Principal Mechanical Design Engineer
Farnham, UK

The Role

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

The Principal Mechanical Design Engineer is a senior technical leader responsible for the design, development and delivery of mechanical and electromechanical systems for the in-wheel motor. As part of the Mechanical Design team, the Principal Mechanical Design Engineer will provide technical direction for mechanical engineering activities across assigned projects and major work packages, ensuring robust engineering decisions, effective cross-functional delivery, and successful progression through the gated development process.

This role is expected to combine deep engineering capability with strong delivery leadership. The Principal Mechanical Design Engineer will lead complex problem resolution, guide mechanical decision-making, coordinate technical activities with minimal intervention, and act as a key interface between Mechanical Design and other business functions, suppliers and customers. They will also support and mentor other engineers across the business.

Reporting, Location & Travel

This role reports to the Mechanical Design Manager and has no direct reports, but provides technical leadership and task coordination within project teams. The role is based in Farnham, Surrey, UK, with occasional requirement for national and international travel, primarily to local suppliers, partners and production facilities.

Key Responsibilities

- Lead the design and development of mechanical and electromechanical systems for the in-wheel motor and inverter from concept through to production.
- Act as the technical lead for mechanical engineering on assigned projects and major work packages, providing clear engineering direction and decision-making.

- Own complex mechanical problem solving, technical risk identification, and resolution through design reviews and gated development activities.
- Coordinate mechanical engineering delivery across cross-functional teams, ensuring robust progress toward project milestones with minimal supervision.
- Work closely with suppliers, customers, and internal functions to achieve technically sound, manufacturable, and cost-effective solutions.
- Ensure mechanical designs meet relevant standards, legislative requirements, and internal development processes.
- Support validation, DFMEA, release/change control, and production deployment activities as part of the wider product development lifecycle.
- Mentor other engineers and contribute to the continuous improvement of engineering capability, methods, and processes across the business.

Relevant Skills & Behaviours

We value and measure ourselves against the following 'Best-Self' Behaviours:

- **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:

- Strong technical judgement grounded in engineering fundamentals and first-principles thinking.
- Able to lead complex engineering activities with a high degree of autonomy and accountability.
- Confident making, communicating, and defending technical decisions across multiple stakeholders.
- Practical, structured, and collaborative in problem solving.
- Strong written and verbal communication, including design reviews and technical reporting.
- Organised, delivery-focused, and comfortable operating in a fast-paced engineering environment.
- Committed to engineering quality, integrity, and the development of others.

Relevant Knowledge & Experience

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

Essential:

- Degree-qualified in a relevant engineering discipline.
- Significant experience in mechanical or electromechanical product development within a complex engineering environment.
- Strong capability in hand calculations, engineering fundamentals, and the use of FEA to support design decisions.
- Extensive CAD and drawing experience, including BS 8888 and GD&T.
- Proven experience leading technically complex design work through structured development and review processes.
- Strong understanding of materials, manufacturing methods, validation activity, and design for manufacture.
- Experience working across suppliers and cross-functional teams to deliver robust engineering solutions.
- Ability to lead technical work packages and drive delivery with minimal intervention.

Desirable:

- Master's degree or Chartered status.
- Experience with advanced simulation tools, including FEA and CFD.

- Experience in high-power electric, hybrid, or automotive electromechanical systems.
- OEM or Tier 1 high volume experience.
- Familiarity with ISO 26262, ASPICE ME, or comparable development frameworks.

If you'd like to apply, please send a copy of your cv along with the role you'd like to apply for over to ukjobs@proteanelectric.com.