

ROLE DESCRIPTION

Role Title:	Mechanical Design Engineer
Department:	New Product Development
Role Type:	Full-time/permanent
Location:	Mildenhall
Reports to (Title) :	Head of New Product Development

Role purpose:

Reporting to the Head of New Product Development the Mechanical Design Engineer is responsible for the conceptualisation, design, build, verification, and validation of new products whilst collaborating with Manufacturing Engineering ensuring a viable, verified, and validated product is scalable for production at the agreed specification and cost.

Key Accountabilities:

- Ability to capture and specify the design and development requirements, and validation needed to deliver successful systems, products, and components to meet/exceed the customer's specifications.
- An advanced and demonstrable understanding of 3D modelling and prototyping for a number of proposal and development systems, products, and components (Solidworks or Solid Edge preferred).
- Bill of Materials creation and review.
- Utilise design and development tools including Request for Quotations (RFQs), Design freeze/ release, Design Failure Mode Effect Analysis (dFMEA), Production Part Approval Process (PPAP), Design Verification/Product Validation (DV & PV) testing, Computer-aided engineering (CAE) and risk management activities.
- Report on design, costs, Engineering Changes, and budgetary information effectively to line manager, senior board members and customers, and provide regular progress updates.
- Champion the NPD department and promote best practice in every step of the development process.
- Create initial feasibility studies, Return on Investment calculations, and create project-based Business Cases and project justification.
- Conceptualise new designs using cutting edge technology and methodologies.
- Collaborate with suppliers and customers to ensure CamdenBoss repeatedly delivers to expectations.
- Design, build and test in-line with relevant standards and legislation.
- Utilise relevant prototyping techniques.
- Perform mechanical calculations relevant to the material, product, or process under development.
- Consistently promote high standards leading by example.

Role Description –Development Engineer

Decision making and influence:

- Required to make decisions within remit above and to escalate issues with significant risk/implication to the Head of New Product Development.
- Clear and detailed KPIs and procedures are provided and will be regularly reviewed against the agreed objectives.
- Act as a role model for the New Product Development function, leading by example and championing the Core Values in all activities and interactions.

Knowledge, Skills & attributes:

Essential		Desirable	
1	Educated to a minimum of HNC / HND level or equivalent in a design/development engineering discipline and relevant experience	1	Educated to Relevant Mechanical Design Engineering Degree
2	Demonstrable experience to conceptualise, design, build, verify and validate a variety of products relevant to CamdenBoss products	2	Experience of simulation and modelling software (moldflow analysis, Finite Element Analysis (FEA) etc.
3	Working knowledge and experience of DFMEA, FMEA, APQP, PPAP, DQ and related methodologies	3	Knowledge and experience of operating within an ISO 13485 environment
4	Ability to effectively interact within multiple areas of the business at all levels	4	Sound knowledge and experience within a complex electro/mechanical business environment
5	Advanced experience and understanding of 3D CAD software and PLM Systems (Windchill, Teamcenter)	5	Sound knowledge and experience within a sheet plastic fabrication/assembly business environment
6	Effective management and prioritisation of tasks	6	Ability to compile and present detailed reports and justifications
7	Demonstrable experience designing injection moulded components, and a familiarity with the various relevant design and development stages therein.	7	Sound Knowledge and experience within a sheet metal fabrication environment
8	Thorough understanding of Design for Manufacture (DfM) and the ability to develop and evolve the process	8	Sound Knowledge and experience within a Die casting environment
9	Knowledge and experience of New Product Development & Introduction (NPD&I)	9	Expert knowledge of plastic sheet bonding
10	Understanding of lean methodologies		
11	Demonstrable experience and knowledge of product validation and verification (V&V)		
12	Motivated by continuous improvement		
13	Demonstrable knowledge and experience of prototyping techniques.		
14	Knowledge and experience of creating engineering BOMs		

Other information :

- **Core Values** - the post holder must live the Company values and encourage others to do the same at every level in the business
- **Interpersonal Skills** – able to communicate, interact and work well with others; open to others ideas and inputs; works with others to find a mutually agreeable outcome
- **Initiative** – proactive, self-starter; looks for opportunities for improvement and implements; suggests and develops innovative approaches and ideas
- **Communication** – strong oral and written communication skills; clear and persuasive; listens to others and seeks clarification, contributes and gives input to discussion
- **Strategic thinking** – understands business goals and objectives and seeks to develop strategies and initiatives to support these; identifies risks and opportunities; understands business implications of decisions
- **Decision making** – willing to make decisions and includes appropriate people in decision making process; makes timely decisions.