

Job Title:	Senior Mechanical Design Engineer
Department/Location:	Research and Development
Reporting To:	Product Development Manager
Purpose of Role: (A short sentence that summarises the position.)	To design and develop new products, on-time, on cost and in full, along with supporting and improving existing products.
Role Summary: (A few bullet points that provide an overview of role and how it links into / supports departmental / business strategy.)	<p>Design Products - This may include making calculations of product dimensions and tolerances, drawing sketches of product ideas, prototyping and designing mock-ups of proposed products.</p> <p>Develop and Complete Projects - Develop ideas, manage and lead activities until they become real products.</p> <p>Adhered to Timeframes - must be self-led and driven assuring projects are moving forward on schedule.</p> <p>Design Project Plans - Design detailed project plans with engineering, manufacturing, and sales and marketing teams to manage all aspects of product development and production.</p> <p>Document Engineering Knowledge – Develop and maintain company standards as well as create design & product related guidelines and best practices to follow.</p> <p>Research - Perform market research to determine what types of products might be successful among consumers, research product ideas to determine their viability, and research how existing products on the market are performing.</p> <p>Collaborate - Collaborate with engineers and developers to create product designs and with marketing teams to develop sales plans for future products.</p> <p>Test – Verify conceptual designs through analysis and testing, proposing alternative solutions where applicable.</p>
Key Accountabilities and Responsibilities:	<ul style="list-style-type: none"> • Investigation of new technologies and how they can be incorporated into current products and new product ranges. • Define and manage project and resource plans for “owned” projects. • Risk assessments of project / product definitions and designs. • Use of peer review and process driven quality checks systems such as DFMEA • Prototype feasibility or “proof of life” for “owned” projects. • Management of design changes including Bills of Materials, 2D and 3D design updates. • Adherence to all legislation relevant to the product or company (ISO:9001 etc.). • Project handover management from R&D into Production, including manufacturability and sourcing information. • Improvements to R&D workflows and processes ensuring the continual improvement of the department. • Support of current products through Jira ensuring timely close out of issues. • Mechanical design of products through their full lifecycle.

Role Objectives & Measures

<p>Key Deliverables: (Within the first 12-18 months.) Objectives which are SMART: Specific Measurable Achievable/Agreed Realistic Timebound</p>	<ul style="list-style-type: none">• Full Elcometer Product Training completed within 6 months.• Inventor Essentials Training completed within 6 months.• 12 Months – Intimate knowledge of NPI process with the ability to hold people accountable and modify the lifecycle to improve time to market.• 18 Months – Understanding of Electronics and Software and how these specialisms affect the mechanical design of Elcometer products.
<p>Measures of Success:</p>	<ul style="list-style-type: none">• Employee will become the go to person for all mechanical issues raised relating to their projects and over time become the technical primary when it comes to mechanical projects in the business.• The ability to manage their own workload and report to the business on the status of that workload professionally and effectively.• The successful specification and execution of mechanic designs to mutually-agreed timescales.

Person Specification

	Essential	Desirable
Qualifications/Education & Training	<ul style="list-style-type: none"> GCSE grade C or above; English and Maths, supported by engineering experience. 	<ul style="list-style-type: none"> Educated to Diploma / Degree level or equivalent in Mechanical Engineering or a related subject.
Experience	<ul style="list-style-type: none"> 8-10 years' 3D Mechanical Design experience. Modelling and simulation of mechanical systems. Designing machined and cast metal components and assemblies. Designing injection moulded components and assemblies. Electro-Mechanical Design Experience. Designing precision machining parts for intricate assemblies / fits. New Product Introduction process. 	<ul style="list-style-type: none"> Experience with Autodesk Inventor and Vault. Design of handheld electronic equipment. Design of high precision metal parts for measurement devices. Design of machined and cast metal parts for pressurised systems and fluid related applications.
Skills & Competencies	<ul style="list-style-type: none"> Excellent written and verbal communication skills. Strong analytical and problem-solving skills. IT Literate – Word, Excel, PowerPoint, Outlook, Corel Draw, etc. Good organisational skills. Ability to manage own time effectively within a project. Attention to detail. DFM and DFMEA practical application. 	<ul style="list-style-type: none"> Knowledge of test and measurement equipment. Knowledge of Advanced manufacturing techniques and Industry 4.0. Epicor ERP experience.
Personal Attributes	<ul style="list-style-type: none"> Able to show initiative and adapt quickly to new requirements. Hands on approach. Strong practical skills. Able to work individually and as part of a goal orientated project team. Well organised and methodical. Well-presented with a positive, proactive and professional approach. 	<ul style="list-style-type: none"> The ability to question and counter decisions using sound engineering knowledge. Personable with the ability to work at all levels of the business across multiple departments.

Name:

Signed:

Date: