



# JOB DESCRIPTION

Job Title	Senior Mechanical Design Engineer
Location	Hydro House, Aberdeen
Functional/Discipline Area	Engineering
Line Manager	Engineering Manager
Directly Works With	Mechanical Design Engineers Electrical Design Engineers Draughters Product Realization Team

Objectives / Scope
<p>As a Senior Mechanical Design Engineer, you will play a pivotal role in the product development lifecycle, contributing to the design and optimization of innovative mechanical solutions. Leveraging your expertise in Autodesk Inventor, Vault, and Mathcad, you will be instrumental in transforming concepts into reality. The primary focus of this role is to lead and execute mechanical design projects, ensuring the highest standards of precision, efficiency, and compliance with industry regulations. You will collaborate cross-functionally with various teams to drive excellence in mechanical design processes, from initial ideation to final product delivery.</p>
<p>The successful candidate will assume technical disciplinary responsibility for design related tasks and activities:</p> <ul style="list-style-type: none"> <li>• Take full responsibility for live/R&amp;D scope design packages as assigned by the Lead.</li> <li>• Lead associated draftsperson with the allocated scopes of work.</li> <li>• Check/Approve design packages (drawings, procedures, calculations, spec. sheets etc.)</li> <li>• Troubleshoot manufacturing/testing related issues.</li> <li>• Produce training material for engineering.</li> </ul>

Main Responsibilities
<p><b>Mechanical Design:</b></p> <ul style="list-style-type: none"> <li>• Lead the design and development of electro-mechanical connectors and systems, utilizing Autodesk Inventor for 3D modelling, assembly design, and detailed drawings.</li> <li>• Incorporate innovative solutions to meet performance, reliability, and manufacturability requirements.</li> </ul>
<p><b>Vault Management:</b></p> <ul style="list-style-type: none"> <li>• Implement and manage version control processes using Autodesk Vault for mechanical design files.</li> <li>• Ensure proper documentation, organization, and revision tracking to facilitate collaboration within the team.</li> </ul>
<p><b>MathCAD Analysis:</b></p> <ul style="list-style-type: none"> <li>• Utilize MathCAD for engineering calculations and analysis to ensure the structural integrity, thermal performance, and reliability of electro-mechanical connectors/systems.</li> </ul>



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<b>Cross-functional Collaboration:</b>
<ul style="list-style-type: none"><li>• Collaborate closely with electrical engineers, materials engineers, and other stakeholders to integrate mechanical designs seamlessly into electro-mechanical systems.</li><li>• Work in tandem with project managers to understand project requirements and timelines.</li></ul>
<b>Quality Assurance:</b>
<ul style="list-style-type: none"><li>• Conduct thorough reviews of mechanical designs to ensure they meet industry standards, compliance requirements, and internal quality benchmarks.</li><li>• Establish and enforce quality control measures within the mechanical design process.</li></ul>
<b>Innovation and Optimization:</b>
<ul style="list-style-type: none"><li>• Stay abreast of emerging technologies and industry trends related to electro-mechanical connectors.</li><li>• Drive innovation and optimization in mechanical design processes to enhance efficiency and product performance.</li></ul>
<b>Project Management:</b>
<ul style="list-style-type: none"><li>• Manage multiple projects concurrently, ensuring the timely delivery of high-quality mechanical designs.</li><li>• Provide technical leadership and guidance to the mechanical design team.</li></ul>
<b>Documentation:</b>
<ul style="list-style-type: none"><li>• Create comprehensive technical documentation for mechanical designs, including specifications, bills of materials (BOMs), and assembly instructions.</li><li>• Ensure documentation aligns with regulatory requirements and company standards.</li></ul>

<b>Skills base</b>
<ul style="list-style-type: none"><li>• Degree qualified in an appropriate Engineering discipline coupled with a minimum of 5 years of relevant experience.</li><li>• Post-graduate degree desirable.</li><li>• Chartered Status (desirable).</li><li>• Advanced knowledge of Inventor/AutoCAD and Calculation packages (e.g. MathCAD).</li><li>• Competent in FEA analysis.</li><li>• Good understanding of Engineering principles and data analysis.</li><li>• Project management skills to organise tasks, manage timelines and control budgets.</li><li>• Balance of technical, commercial and leadership experience to deliver technically complex projects on-time, on-budget and in exceedance of our clients' expectations.</li><li>• Desire to make a difference and take responsibility and ownership of engineering activities and to drive continual improvement.</li><li>• Growth mindset to learn new skills and apply skills to new and different applications.</li><li>• Excellent interpersonal, verbal, and written communication skills.</li><li>• Willingness to travel</li></ul>