

Position Information			
Position Title:	Mechanical Design Engineer		
Reports To:	Principal Engineer	Function/Discipline	Product Development
Staff Type:	Permanent, Salaried	New/Replacement	Replacement
Keywords:	Instrumentation development. Mechanisms, electronic housings. Design methodologies including transfer to manufacture. Product compliance.		
Background:	<p>LGC is the largest privately owned forensic science service provider in the UK. Serving the police and crime enforcement agencies, we also have an increasing number of private sector clients. We offer a comprehensive range of forensic science services, based on an extensive range of techniques. Our scientists use the latest innovations - often developed in-house - to establish the facts of cases under investigation.</p> <p>With a team of over 600 staff in the UK, LGC Forensics delivers established and meticulously executed forensic science either at the crime scene or in one of our eight UK laboratories (including Culham in Oxfordshire).</p> <p>The Company is now looking for a high caliber, commercially experienced mechanical engineer to join a new multi-disciplinary Product Development team. This team is charged with developing forensic science products; delivering new capabilities in the field. This includes instrumentation and consumables for analysis at the scene of crime or point of discovery.</p> <p>Mechanical design is a key part of the overall product offering.</p>		
Summary Aims:	<p>Provide mechanical design engineering resource for forensic science product development.</p> <p>Particular emphasis on opto-mechanical design incorporating heating elements and embedded electronics; sample handling mechanisms, industrial design.</p> <p>Interfaces with electronics design, optical design and chemistry development teams.</p> <p>This role delivers an instrument platform capable of fully exploiting novel chemistry enabling rapid DNA fingerprinting. The products developed will target field measurements requiring portability, remote communications and a high level of robustness and ease of use.</p> <p>Our DNA profiling products deliver a high fidelity measurement in a field location in a practical manner. Robustness and simple user interactions are key attributes. The DNA profiling mechanism includes sampling devices to trap DNA at the scene of a crime and an instrument including a thermal cyclor and measurement via photometric fluorescence.</p> <p>We are looking for a creative individual who is able to take user requirements and formulate a design path to meet these needs. The individual will need to work well as part of a dynamic development team to make a major contribution to the success of projects in terms of the performance, quality and timeliness of the product delivery.</p>		

<p>Position Responsibilities:</p>	<p>Mechanical design engineering from product concept through to customer delivery. Gathering and understanding requirements; specification; design; industrial design; test and evaluation; delivery to manufacturing and manufacturing support. Interaction with suppliers is crucial across a range of product types, materials and processes.</p> <p>Apply mechanical design knowledge and proven skills to produce mechanical systems that meet user requirements, performance specifications, quality and robustness targets. Work hand-in-hand with other design areas to ensure that products are introduced to the market place on time. A clear understanding of all aspects of the mechanical design is critical.</p> <p>Lead development of mechanical engineering aspects:-</p> <ul style="list-style-type: none"> To develop hardware scope and architecture based on customer and technical requirements. To understand, design and implement simple user interactions and ergonomics. Detailed design of the overall system layout and piece-part design of the assemblies for thermal control, fluorescence detection, sample loading, electronics packaging. Design and test robust packaging for the instrument. Oversee testing, internal evaluation and conformance testing. <p>Be involved at all stages of the wider product development process, for example:-</p> <ul style="list-style-type: none"> To work with other members of the product development team to translate product requirements into product specifications. To conduct technical reviews during the development of new products. To produce project reports for the product development team. To support and trouble shoot the introduction of new products and in particular pilot batches released to initial customers.
<p>Experience Required:</p>	<p>At least four years relevant mechanical engineering experience is required.</p> <p>Experience Required:</p> <ul style="list-style-type: none"> Mechanical design of systems involving sensors, detectors and electronics. Expert use of mechanical engineering CAD systems (preferably SolidWorks). Product development and transfer to manufacturing. Thermal design and heat management. <p>Desirable:</p> <ul style="list-style-type: none"> Previous experience of developing scientific instrumentation. Design of field portable equipment. Industrial design and ergonomic user interfaces. A general understanding of forensic, biology or life-science areas.
<p>Education Required:</p>	<p>Honours degree desirable.</p>

Please apply to:

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