

Position Description – Medical Device Design Engineer

Updated 8 April 2024

POSITION DETAILS	
College	College of Science and Engineering
Organisational Unit	Medical Device Research Institute
Supervisor	Medical Device Partnering Program (MDPP), Research and Development Manager
Classification	HEO6
Employment Type	Fixed-term; Part-time or Full-time

POSITION SUMMARY
<p>The incumbent will be part of a medical device research and development team within the Medical Device Research Institute at Flinders University. The team is focussed on developing new medical device product ideas, particularly for external clients, through the Medical Device Partnering Program and the Australian National Fabrication Facility. The design engineer will be involved in the design, prototyping, testing and documentation of novel medical devices, and is expected to develop sound engineering solutions that meet client needs and are designed for efficient and cost effective manufacture.</p> <p>The MDPP is a national MedTech program that brings together researchers, clinicians and industry to design and develop medical device prototypes for innovators and entrepreneurs. MDPP has completed more than 100 projects and created dozens of start-ups since it began in 2008. Projects are short and diverse, with a wide range of technical challenges and opportunities to develop understanding across all areas of medical devices.</p>

UNIVERSITY EXPECTATIONS AND VALUES
<p>All staff at Flinders are responsible for understanding their obligations and responsibilities as set out in the University's code of conduct and are expected to:</p> <ul style="list-style-type: none"> demonstrate commitment to the University's values of Integrity, Courage, Innovation, Excellence and the underlying ethos of being Student Centred; contribute to the efficient and effective functioning of the team or work unit in order to meet the University's objectives. This includes demonstrating appropriate and professional workplace behaviours, providing assistance to team members if required and undertaking other key responsibilities or activities as directed by one's supervisor; promote and support an inclusive workplace culture which values diversity and embraces the principles of equal opportunity; perform their responsibilities in a manner which reflects and responds to continuous improvement; and familiarise themselves and comply with the University's <i>Work Health and Safety, Injury Management and Equal Opportunity</i> policies. <p><i>A National Police Certificate which is satisfactory to the University will be required by Flinders University before the successful applicant can commence in this position.</i></p> <p><i>An up-to-date COVID-19 vaccination may be required as a condition of employment, in accordance with the Flinders University COVID-19 Vaccination Policy (2022). If required, any offer of employment will be subject to the successful candidate presenting their COVID-19 Digital Certificate as evidence of vaccination or showing evidence of a valid medical exemption, where relevant.</i></p>

KEY POSITION RESPONSIBILITIES

The Engineer is accountable for:

1. Designing, prototyping and testing highly specialised biomedical engineering solutions for medical devices that meet client needs and are designed for efficient and cost effective manufacture.
2. Working collaboratively with external stakeholders and with internal team members.
3. Liaising with outside organisations and contractors on complex technical matters.
4. Any other responsibilities in line with the level of the role as assigned by the Supervisor and/or the University

KEY POSITION CAPABILITIES

- Degree qualification in Engineering (Biomedical, Mechanical, Mechatronic or similar) with relevant experience or an equivalent combination of experience, education and training
- Experience in complex and innovative design:
 - Use of appropriate CAD tools to design manufacturable parts and assemblies, including liaising with electronics engineers to incorporate their designs
 - Engineering workshop skills and/or understanding across a range of processes such as 3D printing, milling, turning, laser cutting, and others.
 - Practical experience in constructing and testing prototypes and problem solving
- High level analytical skills together with the capacity to assess, understand, exercise technical judgement and communicate complex technical matters in a clear accurate manner.
- Demonstrated high level inter-personal skills and the ability to liaise effectively with a wide range of people, including excellent written and verbal communication skills.
- A demonstrated enthusiasm for customer service and the support of other team members.
- Demonstrated ability to apply initiative, judgement and prioritisation in a busy team environment.
- Experience working in a managed Workplace Health and Safety environment.

Desirable:

- Previous experience working in the medical device sector
- Understanding of medical device regulatory requirements
- Previous experience of clinical trial design, co-design, ethics and/or data analysis
- Capability in electronic circuit design or software development