



## Senior Mechanical Engineer

DefendTex is an Australian owned Defence company with a strong focus on innovation, research and technology development. DefendTex services military and law enforcement communities around the world. At DefendTex, we value integrity, innovation, professionalism and passion. Our vision is to be a world leader in defence innovation.

DefendTex are seeking an experienced Mechanical Engineer to join an expanding team working on the development of cutting-edge Defence technologies. Specifically, the role will be focused on design and development of a range of novel unmanned systems technologies. The successful applicant will be required to lead the design of the products including any support systems, prepare and review 3D CAD models of unmanned systems sub-components, assemblies and tooling as well as prepare and review detailed manufacturing drawings. The successful applicant will act in a Team leader role for a small multidisciplinary team of approximately 5 engineers.

The successful applicant will evolve the existing designs based on empirical test data to optimise the system's performance. They will also provide insight into materials and manufacturing improvements where appropriate. These designs will require the integration of electronic systems, as well as the use of a variety of lightweight high-performance materials. The successful applicant will be required to develop flight test plans and run test campaigns at regular intervals. The role may also require the assembly and handling of novel ammunition and weapon components.

Initially the role will be working on the development of small unmanned systems, however, there will also be opportunities to contribute to other technologies under development at DefendTex.

### About this role

- Technical lead for a multidisciplinary team.
- Design and optimisation of mechanical components, systems and tooling for small unmanned systems.
- 3D CAD modelling of components and assemblies to be used in small unmanned systems
- Preparation of manufacturing drawings including tolerancing and dimensioning to Australian Standards
- Conduct critical design reviews and product optimisation
- Design for manufacture
- Development of test plans
- Carrying out flight testing campaigns including field testing
- Failure analysis
- Prototyping and assembly of unmanned systems for testing campaigns
- Applied research in the field of unmanned systems
- Liaise with external suppliers of sub-components and raw materials

### About you:

#### Essential:

- Bachelor of Engineering (Mechanical)
- Minimum 6 years of engineering experience
- 3D CAD modelling expertise (SolidWorks preferred)
- Experience designing plastic components for injection moulding
- Experience with detailed design of tooling for injection moulding
- Experience designing components for CNC machining
- Experience preparing manufacturing drawings to AS 1100
- Good understanding of engineering materials: specifically, lightweight alloys, steels, polymers and composites
- Hands-on, practical approach to engineering problem solving
- Knowledge of various manufacturing processes e.g. manual and CNC machining, injection moulding, casting, 3D printing, fabrication
- Sound understanding of Design for Manufacture and Assembly principles
- Sound knowledge of mechanical design
- Experience as a project leader / Team Lead
- Australian Citizenship - must be eligible for the Australian Government BASELINE security check
- Not be a prohibited person under Section 3 of the Firearms Act 1996 (Victoria)
- DefendTex is an Authorised Provider under Manufacturing. This role is required onsite and thus you will be required under the Victorian Government mandate to provide proof of vaccination in accordance with the mandate.

**Desirable:**

- Experience in an R&D role
- Thrives in a fast paced, dynamic work environment
- Interest and breadth of knowledge in other engineering domains (e.g., Robotics, electrical)
- Basic understanding of electronic systems
- Practical stress analysis
- Use of scrum/agile tools, e.g. JIRA and confluence, for tasking and management
- Familiarity with Defence projects, including ASDEFCON and Defence Innovation Hub
- Experience with FEA tools and simulation
- Remote Pilot License (RePL) and experience or interest in flying small unmanned aerial vehicles

A dynamic, agile and enthusiastic applicant who operates well in a multidisciplinary team environment will suit this role.

As a Defence security clearance is required for this role, applicants must be Australian citizens and eligible to obtain and maintain a Baseline clearance. To learn more about clearances please visit – <http://www.defence.gov.au/AGSVA>

**Why us?**

- Competitive remuneration
- Exciting projects and industry leading innovations
- Professional learning and development opportunities
- Working in a dynamic team environment with talented engineers to develop innovative, novel applications for defence
- Opportunity to work collaboratively with external research organisations and institutions

We are committed to ensuring diversity, inclusion and equality are embedded throughout our organisation for the benefit of our customers and our employees. We strive for a positive and engaging workplace where mental health and wellbeing are supported. We welcome applicants from all diverse backgrounds, including Aboriginal and Torres Strait Islander people.

If you are looking for a unique and exciting opportunity, we look forward to your application.

**Interested?**

If this sounds like you, are you're interested in applying for this exciting role, please send your CV and Cover Letter to our Head of People and Culture, Lauren McCleery at [lauren.mccleery@defendtex.com](mailto:lauren.mccleery@defendtex.com)