9 Light Square
Adelaide, SA 5000

Mechatronics Lead

Location: Adelaide, Australia (On-Site)
Employment Type: Full-time
Department: Engineering

About Paladin Space

At Paladin Space, we are pioneering the world's first reusable space debris removal system – creating technology that safeguards Low Earth Orbit and enables a sustainable future in space as the industry grows. Our mission is to clean, reuse, and protect the near-Earth environment for customers across the commercial, defence and government industries.

Our team core values include tenacity, curiosity, and creativity – which are especially important when we're tackling the hardest problems in space. We enjoy building new technology by designing, assembling, testing, failing, iterating and succeeding at a rapid pace, while having fun along the way. As a result, we also value proactivity and efficiency, executing our mission with purpose and precision. And above all, we believe in synergy: collaboration across every technical, legal, and business domains to deliver impact that extends beyond Earth.

If you want to apply your technical expertise to one of the most meaningful challenges in the space industry (and see your robotics drive real spacecraft in orbit) this is your opportunity to make a lasting impact.

Job Overview

We're seeking an experienced and versatile Mechatronics Engineering Lead to lead the design and development of advanced robotic and mechanical systems that enable reusable orbital debris capture and return.

In this role, you'll take technical ownership of key mechatronic subsystems – from early-stage concept development and prototyping to qualification, integration, and flight readiness. You'll play a pivotal role in defining the Triton system architecture, guiding design decisions, mentoring junior engineers, and ensuring performance and reliability in the harsh environment of space.

This is a hands-on leadership position that requires deep technical expertise, cross-disciplinary collaboration, and the drive to turn ambitious ideas into operational hardware. You'll help shape both the product and the engineering culture of a startup building first-of-its-kind space tech.

As a growing startup, Paladin Space offers a modest base salary with participation in our Employee Share Scheme, providing long-term value as the company grows

Key Responsibilities

- Lead the design, analysis, and implementation of mechatronic and robotic systems for Paladin's reusable debris removal spacecraft.
- Develop high-performance mechanical and actuation systems, including precision robotics, manipulators, and motion control assemblies.
- Drive the integration of mechanical, electrical, and control systems into cohesive, flight-ready subsystems.
- Own the technical documentation, design reviews, and risk management processes for assigned subsystems.
- Provide mentorship and technical direction to early-career engineers and interns.
- Collaborate closely with multidisciplinary teams – including software, avionics, systems, and operations to align designs with mission requirements.
- Contribute to strategic engineering decisions and continuous process improvement to enhance efficiency and reliability.

Required Skills & Experience

- Bachelor's or Master's degree in Mechatronics, Mechanical, Aerospace, Robotics, or a related engineering field.
- Minimum 2+ years of professional experience in mechatronic or robotic system design (preferably in aerospace, robotics, or precision engineering industries).
- Proven track record of owning subsystem development from concept to production or qualification.
- Proficiency in 3D CAD (SolidWorks, Fusion 360, or equivalent) and structural or motion simulation tools.
- Strong understanding of actuation, sensing, control systems, and embedded integration.
- Knowledge and experience in developing control systems using languages like Python/MATLAB/C++.
- Hands on experience with prototype fabrication, testing, and validation of complex mechanisms.
- Excellent analytical and problem-solving abilities with a high attention to detail.
- A hands-on, proactive mindset suited to a dynamic startup environment.

Bonus Skills (Highly Valued)

- Experience developing space-rated or aerospace-qualified hardware.
- Familiarity with embedded systems, sensors, and real-time control loops.
- Experience with home projects or previous roles in rapid prototyping or additive manufacturing (3D printing experience will come in handy!).
- Exposure to systems engineering, model-based design (MBSE), or mission operations.

Why Join Paladin Space

At Paladin Space, you'll be part of a team redefining what's possible in orbital robotics. You'll have the opportunity to lead the robotics that make autonomous debris removal achievable – and see your work go from concept to orbit.

We're a mission-driven team that values curiosity, creativity, and execution. Here, your ideas matter, your components and code flies, and your work contributes directly to protecting the future of space operations.

If you're ready to apply your expertise to a world-first mission and help shape the frontier of autonomous space robotics – we would love to hear from you.