

POSITION DESCRIPTION



Mobile Systems Engineer



POSITION DETAILS

Position Title	Mobile Systems Engineer
Classification	HEW 7
Position Number	NEW
School/Office	International Centre for Neuromorphic Systems MARCS Institute for Brain, Behaviour and Development
Division	Provost

POSITION PURPOSE

The Mobile Systems Engineer provides specialist engineering expertise to support the design, fabrication, integration, testing, and operation of fixed wing aircraft and drone platforms used in ICNS research.

The position enables research through the development and deployment of custom airborne platforms, integration of sensors and processing systems, and the delivery of safe and compliant flight operations. The position supports projects involving autonomous aircraft, neuromorphic sensing technologies, drone detection systems, and agricultural drone applications.

KEY ACCOUNTABILITIES

1. Design and develop fixed wing aircraft and drone platforms that enable research, testing and data collection activities.
2. Integrate sensors, research equipment and payloads onto airborne platforms to support a range of research and operational applications.
3. Develop and implement flight control, communication and processing interfaces that enable autonomous and coordinated flight operations.
4. Translate research and project requirements into practical engineering solutions, delivering fit for purpose airborne systems and capabilities.
5. Plan, conduct and evaluate ground and flight testing activities to ensure platform performance, reliability and project outcomes are achieved.
6. Ensure safe and compliant operation of aircraft, drones and associated equipment in accordance with regulatory, University and project requirements.

7. Develop and maintain technical documentation, operational procedures and engineering records to support ongoing platform development and operational readiness.
8. Provide training and technical guidance to staff in the safe and effective use of specialised manufacturing equipment and processes used in the fabrication and customisation of airborne research platforms.

QUALIFICATIONS, EXPERIENCE AND SKILLS

1. Degree qualification in Mechanical Engineering, Aeronautical Engineering, Aerospace Engineering or a related discipline, or an equivalent combination of relevant experience, education and training.
2. Demonstrated experience designing, fabricating, assembling and operating fixed wing aircraft and drone platforms for research, testing or operational applications.
3. Proven experience using computer aided design and manufacturing technologies to develop and produce aircraft components and systems.
4. Demonstrated experience integrating sensors, payloads, flight controllers and associated systems into airborne platforms.
5. Experience planning and conducting flight testing and technical evaluation activities, including the application of safe operating practices and risk management principles.
6. Strong analytical, problem solving and project management skills, with the ability to deliver complex technical projects within agreed timeframes.
7. Well developed written and verbal communication skills, including the ability to work effectively with researchers, technical specialists and other stakeholders to translate requirements into practical engineering solutions.

KEY RELATIONSHIPS

- This position reports to: Engineering Projects Team Leader, ICNS
- This position supervises: Nil
- Key internal relationships:
 - Senior Research Fellow, Neuromorphic Systems
 - Research, academic and professional staff across ICNS and the University
 - ICNS Engineering Team
 - ICNS Director
 - ICNS Centre Manager
- Key external relationships:
 - Industry partners and collaborators
 - Research partner organisations

CHALLENGES

- Maintaining a diverse fleet of drones and fixed wing aircraft in a flight ready state while adapting platforms to meet the changing requirements of multiple research projects.
- Designing and developing novel airborne platforms and systems that integrate emerging technologies, sensors and control systems in highly experimental research environments.
- Balancing the delivery of reliable operational capabilities with the testing and validation of new technologies where performance requirements and outcomes may be uncertain.
- Ensuring safe and compliant flight operations while operating within evolving regulatory requirements and complex research settings.

UNIVERSITY EXPECTATIONS

The University expects that all employees are aware of, and comply with legislation and Western's policies and procedures relevant to the position, including but not limited to:

- Code of Conduct
- Work Health and Safety and Wellbeing Management System
- Enterprise Agreement or Award
- Anti-discrimination principles, Equal Employment Opportunity and staff and student equity.

Approved by: People and Culture Partner

Date: 18 September 2026