Daniel Smith

Systems Engineer | Space, robotics, integration & verification

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Systems Engineer working in lunar mobility and robotics. I connect requirements, interfaces and verification with software, hardware and multidisciplinary team delivery. My experience combines professional space engineering, student rover leadership, embedded communications and practical test work.

EXPERIENCE

Systems Engineer | Lunar Outpost Oceania Feb 2026 - present

- Translate stakeholder needs and operational constraints into requirements, allocations and traceability across rover subsystems.
- Coordinate mobility testing as Test Conductor, connecting objectives, readiness, procedures, acceptance criteria and evidence.
- Develop interfaces and support technical reviews across software, electrical, mechanical and mission operations workstreams.

Robotics Software Engineering Intern | Lunar Outpost Oceania Nov 2025 - Feb 2026

- Developed verification tooling and a test client for command and telemetry protocols.
- Produced traceability, test plans and verification evidence; supported software planning and Jira workflows.

Team Lead | Swinburne Rover Team Mar 2024 - Mar 2025

- Coordinated requirements, subsystem interfaces, reviews, integration and verification planning across a multidisciplinary student rover team.
- Developed CAN/UART communications firmware and contributed to onboarding and technical documentation.

Project Manager / Developer | Reach 4 Your Future Foundation Mar 2022 - Dec 2023

- Coordinated technical delivery, logistics and stakeholder communication for community projects, including a solar lantern initiative.
- Built a lightweight AWS-hosted website supporting outreach and reporting.

SELECTED ENGINEERING PROJECTS

UAV communications - university capstone. Developed MATLAB/ns-3 simulations and a Raspberry Pi mesh prototype; designed indoor tests and analysed latency, throughput and packet loss.

MILO Mission Academy - mission concept, 2024. Electrical subsystem lead for a simulated lunar rover concept: power budgets, distribution design, interface documentation and verification planning.

UR5 robotics - university project. Worked across camera-based perception, coordinate transforms, game logic, communication and robot motion in an interactive tic-tac-toe system.

EDUCATION

Bachelor of Engineering (Honours) - Robotics and Mechatronics
Bachelor of Computer Science - Data Science
Swinburne University of Technology | 2025

METHODS & TOOLS USED

Requirements traceability, interface definition, design reviews, V-model, integration and verification planning. Git/GitHub, Jira, Doorstop, Linux, Docker, MATLAB/Simulink, Python, C/C++, STM32 and CAN/UART.