

Tristan Le - Electronics Engineer

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Summary

Electronics and embedded systems engineer with experience leading winning avionics and ground support operations in remote field environments. Experienced in custom PCB design, embedded firmware, STM32 systems, control systems and safety-critical operations across rocket avionics and propulsion ground systems. Proven ability to troubleshoot, recover and validate complex systems under operational pressure with limited resources with technical experience.

Skills

Software: STM32, Embedded C/C++, Python, RTOS, Telemetry / Control Systems

Hardware & Tools: PCB Design, Wiring Harnesses, DAQ Systems, Sensors, Altium, KiCad, LabJack, Linux, Git, Onshape

Licenses: Technicians Radio Operator License (FCC)

Experience

Electronics Team Lead, High Velocity Rocketry, Melbourne, VIC Feb 2026 – Present

- Serve as the Primary Field Operations Engineer across isolated launch sites leading on-site deployment, real-time diagnostics, and repairs for all electronics while strictly enforcing procedural checklists to guarantee system safety.
- Led a team of 10+ engineers, overseeing all electronics for avionics and ground systems, including flight computers, telemetry, radios, control systems, aerobreaks and battery management systems while mentoring junior engineers.
- Built and deployed a modular control system panel and DAQ system validated to fill a rocket 2km away.
- Designed an RF test platform to verify packets on 433MHz and 915MHz.
- Redesigned the entire electronics team architecture and hardware stack from the ground up.
- Engineered a dual redundant ignition system that generates a high voltage spark to ignite O2 in a rocket engine.
- Contributed to the team's achievement of four international awards, including 2nd Place Overall for Best Hybrid vehicle in an international rocketry competition by developing electronics architecture and SOPs.

Senior Electronics Technician, Kingpin, Melbourne, VIC July 2026 - July Present

- Maintained and repaired over a 100 arcade machines daily, including motors, PCBs, locks and scanners.

Electrical Engineering Intern, Arkeus, Melbourne, VIC Dec 2025 - Mar 2026

- Independently developed STM32-based embedded firmware for a precision control system, engineered for safe, remote operation during flight via a human interface CLI over UART for a flight operator.
- Designed and assembled electrical interfaces and wiring harnesses for system integration and hardware testing.
- Built analysis software and calibration tools to benchmark system performance, log data and validate functionality.
- Conducted electrical analysis and calculations for motor and battery efficiency ensuring verified calibrations for flight.
- Authored technical reports capturing test results, calibration procedures and performance insights for team handover.

Ground Support Equipment Team Lead, High Velocity Rocketry, Melbourne, VIC Sep 2025 - July 2026

- Directed on-site field operations for ground support, managing deployment logistics in rural environments and rapidly troubleshooting hardware under launch-day operational pressures.
- Led a team of 4+ dedicated engineers to design, assemble and validate ground support electronics, including cameras, custom PCBs, power control systems and student-developed pseudo PLC control boxes.
- Developed Ethernet based firmware and drivers for real-time control and integration with ground control systems, and authored PDR/CDR documentation for system approval.

Avionics Engineer / Researcher Assistant, High Velocity Rocketry, Melbourne, VIC Apr 2025 - Oct 2025

- Led field operations for ground control and avionics integration during the Australian Rocketry Competition.
- Successfully diagnosed and rebuilt the aerobreaks controller on-site with extremely limited resources under high pressure, ensuring the avionics bay was fully operational and launch-ready.

Software Developer Intern, Data Annotation, Remote Mar 2024 - Dec 2025

- Refined LLMs using Reinforcement Learning from Human Feedback to improve accuracy and context understanding.

Education

RMIT University – Dual BS in Electronics Engineering and Computer Science (3.4/4.0 HD) Feb 2023 - Expected Dec 2027

Awards: 2023 Young Technologist Westpac Scholarship (35 in Australia Annually)