

TYLER FUNK

ROBOTICS SYSTEMS INTEGRATION | EMBEDDED HARDWARE | AUTONOMY VALIDATION

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PROFESSIONAL SUMMARY

Systems integration and validation specialist with hands-on experience troubleshooting autonomous-vehicle test systems across sensors, DC power, Linux compute, Ethernet networking, data logging, and physical test infrastructure. U.S. Marine Corps generator-mechanic background with disciplined electrical and mechanical diagnostics, field maintenance, safety, and technical documentation.

TECHNICAL SKILLS

Systems & Validation: Autonomous-vehicle testing, sensor validation, test infrastructure, root-cause troubleshooting, environmental testing, technical documentation

Hardware & Electrical: DC power, electrical diagnostics, schematics, multimeter use, wiring, electromechanical actuators, fluid handling, ESP32/STM32 prototyping

Software & Networking: Linux, SSH, Docker, Git, Jira, PlatformIO, embedded C/C++, Ethernet/TCP-IP, camera and LiDAR data verification

PROFESSIONAL EXPERIENCE

Glydways — Field Test Specialist | San Francisco Bay Area | Oct 2025–Present

- Recovered and developed an initial rain-simulation capability for autonomous-vehicle sensor-cleaning validation, integrating water delivery, DC power, Linux compute, networking, and sensor-data collection before a dedicated engineering bench was available.
- Diagnosed faults across power, Ethernet, remote access, thermal management, plumbing, and camera/LiDAR logging; corrected an undersized fuse, restored compute and GUI operation, and transitioned the system from unreliable wireless connectivity to weather-resistant wired Ethernet.
- Standardized testing at four distances, verified repeatable sensor logging and export, documented system connections and troubleshooting steps, and later executed controlled validation using the formalized engineering test cart.
- Conduct autonomous-vehicle test operations, capture safety and system observations, and coordinate with engineering and operations teams to reproduce faults and complete structured test procedures.

United States Marine Corps — Generator Mechanic | Active Duty | 2022–Jan 2026

- Performed electrical and mechanical diagnostics, preventive maintenance, and corrective repair on generator systems, parallel configurations, field power distribution, and associated electromechanical equipment under operational constraints.
- Traced circuits using schematics and wiring diagrams, isolated faults with electrical test equipment, and completed independent troubleshooting while maintaining safety, documentation, and mission-readiness requirements.

SELECTED TECHNICAL PROJECTS

DIY SlimeVR Full-Body Trackers | ESP32-S3, IMUs, PlatformIO, FreeCAD: Built and validated five functioning wireless trackers; integrated sensors, LiPo power, custom wiring and enclosures, then resolved firmware, RF, antenna, and packaging issues through end-to-end tracking tests.

ESP32 Remote-Controlled Safe | ESP32, MOSFET, solenoid, HTTP/OTA: Retrofitted a physical latch with protected inductive-load switching, flyback suppression, remote control, and OTA firmware; diagnosed shorts and wiring faults and documented design limitations and next revisions.

TRAINING

DoD SkillBridge Program — Glydways | Autonomous-vehicle testing and systems validation, Oct 2025–Jan 2026

U.S. Marine Corps Technical Training | Generator-mechanic and field electrical systems training