

Miles Reisbach

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Robotics manufacturing and NPI engineering technician: robot assembly lines, commissioning, hardware test, and manufacturing-lab systems integration. Eight-plus years hands-on across robot assembly and bring-up, battery and BMS test systems, EV charging NPI, heavy-equipment fleets, and steel fabrication.

CORE SKILLS

Robotics: robot bring-up and calibration, commissioning automation (ROS), fleet ops (OTA updates, field data pulls), teleop and data collection, HIL bench test

Test & systems: EVT/DVT/PVT test planning, end-of-line (EOL) tester design, acceptance-test program development, PFMEA, CAN bus diagnostics and telemetry (UDS / ISO 14229, Prometheus/Grafana), test automation (Python), electrical integration and harness design, HV battery / BMS bring-up

Software & tools: Python, Bash, ROS, FreeCAD, SolidWorks, Altium, Arena PLM, Pico MES, Jira, Airtable, internal tooling (chat agents, scripted document pipelines)

Manufacturing & fabrication: fiber/CO₂ laser cutting, laser welding, CNC press brake, sheet metal, GMAW/FCAW/SMAW/GTAW welding, 3D printing, rigging (>10 ton), millwright and precision alignment, PLC / hydraulic / pneumatic systems

Compliance & safety: HV safety and lockout/tagout, OSHA, EPA, fire code, safe-work SOPs for high-heat / high-current environments, third-party audits

EXPERIENCE

Optigrid LLC	Longmont, CO
<i>Mechanical Engineering Technician</i>	11/25 – present
<i>Currently employed – details available upon request.</i>	

Scythe Robotics (autonomous commercial mowing robots)	Longmont, CO
<i>Lead R&D Engineering Technician</i>	10/24 – 10/25
<i>Hardware Test Technician II</i>	7/24 – 10/25
<i>Lead Assembly Technician</i>	9/23 – 10/25

- Led a team of techs to stand up and accelerate a world-class autonomous-robot assembly line; fostered a culture of respect, excellence and knowledge-sharing while delivering a safe and efficient robot manufacturing facility.
- Used Bash, Python, and ROS with a junior engineer to streamline robot-commissioning workflow; reduced time-to-market from one month to two days.
- Tracked a rigorous robot hardware-testing schedule with Airtable and Jira; performed risk-based analysis of test requirements to align execution and reporting with project timelines.
- Provided cradle-to-grave test solutions for robot subsystems: test planning, custom test hardware/software, safe execution and timely reporting.
- Collaborated with firmware and electrical teams on a next-generation robot battery and power-delivery project; built harnesses and rigs on demand using Altium, SolidWorks, PrusaSlicer, and Grafana. Contributions resulted in a successful robot deployment and certification.

Western Foundries

Maintenance and Facilities Manager

Longmont, CO

12/21 – 7/23

- Designed, programmed, and oversaw the preventive-maintenance regime for high-capacity induction furnaces operating at >3 MW and >2,000 °C, integrating temperature-log analytics and automated shutdown thresholds.
- Applied thermodynamic calculations and real-time sensor data to optimize furnace ramp-up/ramp-down cycles, cutting energy waste by ~22% while maintaining melt-quality specifications.
- Authored and enforced safe-work-practice SOPs for high-heat, high-current environments, resulting in zero recordable incidents over an 18-month period.
- Coordinated cross-disciplinary troubleshooting (electrical, PLC, hydraulic, and cooling subsystems) that reduced unscheduled furnace downtime from 12 days/month to 4 days/month.
- Managed all regulatory compliance (OSHA, EPA, local fire code) and passed three consecutive third-party audits with commendations for furnace safety controls.
- Negotiated vendor contracts for refractory materials and high-temperature instrumentation, achieving ~15% cost savings while upgrading system reliability.
- Performed modern millwright duties: precision alignment of heavy rotating equipment, air-handling and exotic cooling solutions, and installation of vibration-monitoring mounts to extend machine life.
- Executed complex rigging operations moving >10 ton foundry equipment: certified sling configurations, load-path calculations, and spotter coordination for zero-incident lifts.
- Implemented a digital asset-tracking system for all rigging gear and vital maintenance tools, improving inventory visibility and reducing lost-tool costs by 30%.

EARLIER EXPERIENCE

Sole Proprietorship – Welder/Fabricator (10/17 – 1/24). Ran a custom fabrication business; handled design, manufacturing, and sales/marketing.

City of Longmont – Equipment Mechanic (03/21 – 08/21). Maintained municipal heavy-equipment fleet (including fire and garbage trucks); fabricated parts on-site and streamlined work-order processing.

H&E Equipment Services – Equipment Mechanic (05/18 – 04/20). Maintained heavy hydraulic/electric equipment; served as shop safety advisor and first-aid responder.

Sunbelt Rentals – Equipment Mechanic (10/16 – 10/17). Oversaw rental aerial-work-platform service; performed diagnostics, repairs, and parts fabrication.

Metalithic Ironworks – Welder/Fabricator (10/15 – 10/16). Produced automotive and structural steel components; executed GMAW, FCAW, SMAW, and GTAW welds.

Precision Metalworks – Fabricator (10/14 – 10/15). Machined and welded custom brackets and structural weldments; interpreted blueprints and completed final surface finishes.

Maritime Construction & Engineering – Labor (09/10 – 05/14). Built seawalls, piers, and dock systems; large-scale marine-grade construction and heavy-equipment operation in extreme environments.