

AUSTIN M. BAUMGART

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TECHNICAL MANUFACTURING PROFESSIONAL

Electrical & Mechanical Systems | Manufacturing Processes | Engineering Support

Technical manufacturing professional with experience spanning electronics, electrical and mechanical systems, high-volume manufacturing, prototype fabrication, testing, troubleshooting, and process improvement. Hands-on background includes component-level electronics repair, electrical harness fabrication, mechanical equipment setup and troubleshooting, precision inspection, and interpretation of engineering drawings and technical documentation. Experienced supporting engineering and production environments from electronic product manufacturing through defense vehicle prototype and production programs.

TECHNICAL COMPETENCIES

Electrical & Electronics: Electrical Harness Fabrication • PCB Assembly & Rework • Component-Level Troubleshooting • Hand Soldering • Terminal Crimping & Splicing • Electrical Testing • Firmware Flashing & Device Programming • Electronic Repair

Manufacturing & Mechanical: Mechanical Troubleshooting • Machine Setup & Changeover • Cold Forming • Tooling Setup, Adjustment & Repair • Prototype & Production Fabrication • Process Troubleshooting • Vehicle Systems • Hand, Power & Machine Tools

Quality & Technical Documentation: Engineering Drawings • Wiring Diagrams • Electrical Schematics • Mechanical Blueprints • BOM Interpretation • Technical Manuals • GD&T • First-Piece & In-Process Inspection • Precision Measurement

Test Equipment & Technology: Digital Multimeters • Bench Power Supplies • Oscilloscopes • Function Generators • Optical Comparator • Calipers & Micrometers • TeraTerm • Microsoft 365

PROFESSIONAL EXPERIENCE

GENERAL DYNAMICS LAND SYSTEMS — Driver Mechanic | 04/2024 – Present

Electrical/Mechanical Vehicle Systems • Prototype & Production Support

- Fabricate, assemble, modify, integrate, troubleshoot, and test electrical and mechanical systems for experimental, prototype, retrofit, and production military vehicle programs, including Abrams/AbramsX, Stryker/ARV, RCV, M10 Booker, and XM30 platforms.
- Fabricate, modify, install, and test electrical harnesses, wiring, and test panels from engineering drawings, wiring diagrams, schematics, technical manuals, and controlled

work instructions; perform hand soldering, terminal crimping, continuity testing, and resistance testing.

- Remove, disassemble, repair, modify, assemble, adjust, and reinstall vehicle components and systems including engines, transmissions, suspension, electrical systems, automotive structures, fire-control systems, and test equipment.
- Identify build, drawing, and documentation discrepancies during vehicle and electrical-harness fabrication; work directly with engineering, quality, inspection, and production personnel to resolve issues and recommend corrections.
- Conduct road testing of tracked and wheeled military vehicles across varied operating conditions, load configurations, weather conditions, and test/field environments; perform below-the-hook lifting and rigging operations in support of vehicle build and test activities.

COLD HEADING CO. — Team Leader | 07/2019 – 04/2024

Promoted from Cold Former Operator

- Progressed from Cold Former Operator to Team Leader, assuming responsibility for production priorities, machine assignments, operator training, product quality, troubleshooting support, and day-to-day operation of a high-volume cold-forming production line.
- Performed complete machine setups and changeovers on National, Nedschroef, and Sakamura cold formers, including tooling installation, adjustments, timing, and process troubleshooting.
- Diagnosed mechanical and production issues by evaluating machine operation, tooling condition, timing, and expected operating behavior; inspected, adjusted, repaired, modified, and replaced dies, punches, and related production tooling.
- Performed first-piece and in-process inspections from blueprints, engineering drawings, specifications, setup documentation, and control plans using calipers, micrometers, optical comparators, thread gauges, and height gauges.
- Piloted new production jobs from flow sheets, supplied material, and tooling without established setup sheets or reference samples, developing machine setups and adjustments required to produce conforming parts and establish repeatable production.
- Created operator training documentation covering safety, machine operation, setup, inspection, and troubleshooting, and developed a standardized setup/changeover checklist to improve shift-to-shift continuity and reduce setup errors, troubleshooting time, and avoidable downtime.

HEGEMON ELECTRONICS INC. — Electronic Technician | 01/2017 – 07/2019

- Built, tested, programmed, troubleshot, repaired, and verified custom electronic products and printed circuit board assemblies for commercial vehicle, heavy-duty

vehicle, and agricultural applications while working directly alongside the company's electrical engineer.

- Performed PCB assembly and rework including surface-mount and through-hole component installation, hand soldering, component replacement, wiring, connector installation, manual solder-paste application, pick-and-place operation, and reflow processing.
- Diagnosed electronic product failures to the component level using electrical schematics, PCB documentation, BOMs, datasheets, multimeters, bench power supplies, and electronic test equipment; repaired failed assemblies and verified proper operation.
- Programmed and configured electronic products by flashing firmware, assigning serial numbers, executing commands through TeraTerm/serial interfaces, and performing post-programming functional testing; used oscilloscopes and function generators for defined product testing and signal-response data collection.
- Developed product test procedures, programming fixtures, and custom test cables in collaboration with the electrical engineer, including a reusable programming fixture that eliminated installation of a dedicated six-pin programming connector on each PCB and reduced assembly steps and programming time.

CONTRACTOR NETWORK SERVICE LLC — Owner / Independent Contractor | 2018 –Present
Part-Time / Project-Based

- Operate a small project-based business providing technical services, electronics troubleshooting and repair, and subcontracting support alongside full-time employment.
- Completed a commercial network installation for AAA Insurance consisting of 14 Cat6 network runs, network/server rack installation, cable termination, connectivity testing, and system verification.
- Coordinate subcontracted work through a network of small businesses and independent service providers, connecting clients with appropriate resources and managing project communication and completion.

CERTIFICATIONS, CLEARANCE & TRAINING

- IPC J-STD-001 Certification | Current through April 2027
- Active DoD SECRET Security Clearance
- Employer Training: High-Voltage Electrical Safety (600V+) & Lockout/Tagout (LOTO)
- CPR, First Aid & First Response | Current

EDUCATION

National University

Bachelor of Science in Electrical & Computer Engineering | In Progress | 2029

GPA: 3.96