

Catalina Mari Mapson

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I am an experienced Electrical Engineering Technician with a strong background in harness assembly, PCA board rework, and quality control inspections. Proficient in IPC standards, troubleshooting, and technical skills, including Microsoft Office and Adobe Products. Adaptable and detail-oriented with a proven track record in R&D and production environments.

Education

University of Colorado at Boulder

Bachelor's Degree in Comprehensive Mathematics

Bachelor's Degree in Japanese Language and Literature

August 2012 – May 2016 | Boulder, CO, USA

Akita International University

Study Abroad in Japanese Language and Culture

March 2015 – August 2015 | Akita, Japan

Grand Canyon University

Master's Degree in Secondary Education - Mathematics

November 2017 – May 2019 | Phoenix, AZ, USA

Skills

Language Proficiency

- English: Fluent (Speaking, Reading, Writing)
- Japanese: Intermediate (Speaking), Beginner (Reading, Writing)

Technical Skills

- Wiring Diagrams: Reading, Designing
- Schematics: Interpreting, Engineering Notes, IPC Standards, Work Instructions
- Microsoft Office: Word, PowerPoint, Excel, Outlook
- Adobe Products
- Odoo Systems
- Fusion Systems
- Manufacturo Systems
- Research and Organization
- Interpersonal Skills: Empathy, Communication

Cable Harness Experience

- Troubleshooting, Harness Forming, Stripping, Splices, Mechanical Crimp, Solder Sleeve
- Mate/Demate, Crimping, Ring Connectors, Circular Assemblies, Wire Splice Terminal, Terminals, Pins
- Molex Tools, Daniels Tools, Ferrules, RJ45 Connectors, Coaxial Connectors, Pin Insert/Extract, Banding Clamps
- Hydraulic Tooling - Crimpers
- Component Recognition, Grounding, and Shielding, Sleeving, Heat Shrink, Rework, and Repair
- Power Tools: Heatgun, Heatsinks, Oven, Fumehood

Solder Experience

- Troubleshooting, Component Recognition, Splices, Lap, Lash, Hook, Solder Sleeve, Mechanical Crimp
- Coaxial Connectors, SMT Component, Through-Hole Component,
- Smallest AWG familiar usage - 32AWG
- Largest AWG familiar usage - 6AWG
- Component Removal, Heatgun, Solder Sucker, Rework and Repair
- Solder Inspection per IPC/Internal standards
- Reflow oven and stencils

Testing Experience

- Multimeter, Megohmmeter, STS Calibration, Safe to Mate, Continuity/Isolation, Basic Aliveness Testings
- Flashing and Configuring internal programs using PCAN
- Busmaster program to troubleshoot/inspect
- Altium maps/nets to troubleshoot
- Basic Python commands in terminal
- Low Voltage and High Voltage Testing

Internal Training

- Bonding & Adhesives, Polymerics, Mate/Demate Connectors, Staking, Conformal Coating, Lacing Harness and PCA
- Mechanical Assembly, Electrical Assembly
- High Voltage Training

Certifications

Blackfox Training Institute/Lockheed Martin

- IPC J-STD-001 I May 2020 – Limited Recertification 2022
- IPC J-STD-001 Space Applications Electronic Hardware Addendum I May 2020
- IPC-7711/7721 I May 2020
- Cable and Harness IPC-620 I May 2022
- Lockheed Martin Internal Training

Career Experience

H3X

Electrical Engineering Technician

September 2024 – Current

- Built electrical prototypes of electric motors and other R&D projects per process plan, engineering notes, and or verbal explanation.
- Used a variety of soldering techniques and tools to assist in manufacturing
- Participated in manufacturing environment and contributed to the inspection, assembly, testing, and general production of electric motor and inverter products.
- Gained experience using heating stations, hot-plates, solder suckers, stencils, solder paste, and the reflow oven.
- Tested and programmed inverters per engineering documents and provided programs

Ingenuity Design Group

Electro-Mechanical Technician (Contract)

September 2024 – November 2024

- Built electrical and mechanical assemblies per engineering designs to produce a variety of prototypes
- Troubleshoot mechanical/electrical nonconforming tasks using provided Python commands and Altium to view boards

Skyloom Global

Electrical Engineering Technician

May 2023 – June 2024

- Focused on R&D, harness assembly, and PCA board rework in a cleanroom environment for flight assemblies.
- Contributed to the assembly, testing, and creation of fiber optic telecommunications systems.
- PCA board rework, harness manufacturing, masking, staking, and conformal coating tasks.
- Conducted quality control inspections (QCPs).

Lockheed Martin

LSTTB Fabrication Technician

February 2022 – April 2023

- Built electrical cables/harnesses for racks and performed mechanical assembly of racks.
- Troubleshoot engineering drawings and addressed mechanical/electrical nonconforming tasks.

Winn-Marion Companies

Panel Wiring/Assembly Technician (Contract)

December 2021 – February 2022

- Prepared, drilled, wired, and installed control panels into cabinets using engineering diagrams.
- Ensured proper wire laying for service, easy access, and clear labeling.

Astra Space

Electro-Mechanical Technician (Contract)

August 2021 – October 2021

- Conducted board population, part removal, and modifications to PCB/PCA.
- Acquired training in harness assembly, conformal coating, and precision cleaning.