Carlos Mendoza

AVIONICS ENGINEER

Tucson, AZ • (520) 555-0151 • carlos.mendoza@email.com • linkedin.com/in/carlosmendoza

SUMMARY

Avionics engineer with 3 years in avionics engineering for stratospheric balloons and unmanned aircraft. Lays out PCBAs in Altium Designer, simulates circuits in LTspice, and brings boards up with oscilloscopes and multimeters through vibration and thermal qualification.

SKILLS

- Avionics Engineering
- Altium Designer
- LTspice
- PCBAs
- Power Distribution
- SPI
- I2C
- Ethernet
- Oscilloscopes
- Python

EXPERIENCE

Avionics Engineer 05/2024 - Present

Sonoran Sky Systems Tucson, AZ

Builder of high-altitude balloon and long-endurance drone platforms.

- Design **6** flight PCBAs in Altium Designer, from flight computers to power distribution units.
- Model power and sensor circuits in LTspice, cutting board respins from 3 to 1 per design.
- Integrate SPI, I2C and Ethernet links between flight computers, radios and payloads on 4 vehicle builds.
- Qualify boards through vibration and thermal tests, closing 18 failures with design fixes.

Electrical Engineer 06/2023 - 04/2024

Saguaro Embedded Electronics Tucson, AZ

Contract designer of embedded boards for industrial and aerospace clients.

- Brought up 25 prototype boards with oscilloscopes and multimeters, tracing every fault to root cause.
- Wrote Python test scripts for automated board checkout, reducing test time 60%.
- Drew harness and power distribution schematics for 3 ground support systems.
- Routed 4-layer boards in Altium Designer for 2 industrial sensor clients, passing EMI tests on the first try.

Electrical Engineering Intern 05/2022 - 08/2022

Catalina Avionics Repair Tucson, AZ

Summer internship at an FAA Part 145 avionics repair station.

- Troubleshot 50 returned avionics units with multimeters and bench test sets.
- Updated 20 wiring diagrams and test procedures to match current part numbers.
- Soldered and reworked connectors on 35 harnesses to IPC-A-610 workmanship standards.

EDUCATION

Bachelor of Science 05/2023

University of Arizona Tucson, AZ

Electrical and Computer Engineering

CERTIFICATES

IPC-A-610 Certified IPC Specialist (CIS)

IPC

07/2022