

Rylei O. McCoy

Aurora, CO 80012 | (719) 588-7170 | ryleimccoyo@gmail.com

Professional Summary

Dedicated electrical engineering student with hands-on experience in building, testing, and troubleshooting electromechanical systems. Proficient in reading and working from schematics and engineering drawings (KiCad, Rapid Harness) for component assembly and system integration. Eager to apply technical skills and a strong work ethic to support spacecraft Assembly, Test, and Launch Operations.

Work Experience

Electrical Engineer Intern.

Stridar

January to May 2025

- Developed fabricated critical wiring harnesses (Rapid Harness) for UGVs, optimizing hardware placement for assembly system integration.
- Rigorously verified electrical documentation (pin-outs, system diagrams, mfg. schematics) against engineering drawings (KiCad) for UGV modules.
- Contributed to assembly, integration testing of electromechanical systems, including motor controls (BLDC, Hall Sensors) PWM/GPIO interfaces.
- Managed UGV Bill of Materials (BOMs) using Inventree for component tracking.

Solar Installer.

Solar Bear Heating

June 2021 to Aug 2024

- Built installed 100+ solar module systems (roof/ground), including electrical wiring mechanical assembly, adhering to safety protocols.
- Troubleshoot maintained electrical/mechanical aspects of solar energy heating systems using diagnostic techniques hand tools.

IDEA Lab Workshop/Makerspace Coordinator.

Red Rocks Community College

May 2022 to May 2024

- Leveraged SolidWorks for 3D modeling, supporting prototyping assembly of student projects.
- Provided technical guidance on diverse electromechanical projects.

Education

Bachelor of Science - Electrical Engineering

Minnesota State University, Mankato

Expected Dec 2026

Associate of Engineering

Red Rocks Community College, Lakewood, CO

Completed, May 2024

Skills and Trainings

Electromech. Assembly, Test & Troubleshoot:

- Electromech. Assembly/Repair
- System Integration Testing
- Electromech. Troubleshooting
- Wiring Harness Fab. Repair
- Motor Control (BLDC, PWM, GPIO)
- Soldering Basic Fabrication

Schematics, Docs Tools:

- Reading Schematics/Drawings
- KiCad (Schematics, Arch.)
- Rapid Harness (Wiring)
- SolidWorks (3D Assembly)
- Tech. Docs (Pin-outs, Diagrams)
- BOM Management

Test Equip. Tech. Practices:

- Test Equip. (Multimeter, Scope)
- Hand Tools (Wrenches, etc.)
- Safety Protocols PPE Usage
- Adhesives/Bonding Knowledge