

# Luis Fernando Cordero Lugo

(323) 473-2864 | fernando.luis1008@gmail.com

## EDUCATION & SKILLS

### University of California, Irvine

Graduated: June 2023

Bachelor of Science, Mechanical Engineering

Relevant Coursework: Sustainable Energy, Robot Dynamics and Controls, Robot Design, Additive Manufacturing

Design/Analysis: SolidWorks, Fusion 360, AutoCAD, DFMA/DFA

Manufacturing: 3D Printing (Fused Deposition Modeling), Laser Cutting & Punching, Metal Bending, DFMA

Electrical/Software: KUKA.WorkVisual, Python, AP100, ArTube, Productivity Suite, In-Sight Vision, VS Creator

## PROFESSIONAL EXPERIENCE

Mechanical Engineer, Lumis Automation - Placentia, California

May 2025 - Present

- Created SolidWorks 3D assemblies exceeding 100+ components and produced detailed part and assembly drawings used directly for fabrication and prototype builds.
- Validated mechanical performance through FEA, motion simulations, hand calculations, and physical testing of belt drives and actuators.
- Authored manufacturing documentation, BOMs, and work instructions to support shop-floor assembly and installation.
- Collaborated with suppliers and OEM vendors to verify component compatibility and meet procurement timelines.
- Supported prototype assembly, installation, and troubleshooting, implementing design revisions to improve reliability and performance.

R&D Engineer, Terra Universal - Fullerton, CA

December 2024 - May 2025

- Designed new mechanical products from concept through fabrication using SolidWorks CAD and FEA tools.
- Performed FEA analysis on a sheet-metal U-bracket to determine optimal material and thickness, ensuring structural integrity under 150 N loading conditions and preventing over/under-design.
- Produced engineering drawings and process documentation for CNC laser cutting, bending, and machining.
- Evaluated materials and manufacturing approaches to improve manufacturability and reduce production time.

Mechanical Engineer, Tezca Inc. - Tustin, California

August 2024 - November 2024

- Engineered a prototype battery cart system in Fusion 360, optimizing design for manufacturability and assembly (DFMA), reducing welding complexity and production time
- Updated and revised solar system plans in AutoCAD to comply with inspector specifications, ensuring regulatory compliance and approval for installation

Powertrain Quality Intern, Stellantis (FCA) - Kokomo, Indiana

June 2021 - July 2021

- Analyzed multi-month transmission data in Excel to identify trends in bolt rejections across thousands of units per week
- Discovered discrepancies between automated reports and mainline computer logs; introduced manual inspection protocol to catch faulty torque/thread issues early

## ENGINEERING EXPERIENCES

Golf Ball Launcher Mechanism — SolidWorks, GD&T, FDM Prototyping

- Designed adjustable gear-driven mechanism and validated performance using motion simulation and rapid prototyping.

Formula One Rear Wing Analysis — SolidWorks FEA

- Conducted linear static and modal analyses to reduce peak stress and avoid resonance through geometry optimization.