

Ricardo Mejia

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Education

Texas A&M University – Bachelor of Science in Mechatronics Engineering

Dec 2026

Regents' Scholar | First Generation Student

Experience

Launch Engineering Intern

Howmet Aerospace - Del Rio, Tx / Acuña, Mexico

May 2026 – August 2026

- Commissioned and programmed two relocated dual-robot Yaskawa Motoman DX200 and XRC YASNAC 2001 manufacturing cells with limited documentation, resolving electrical, servo, safety, interlock, pneumatic, and I/O.
- Designed and implemented a Delta PLC/HMI-controlled automated safety door and optimized an industrial heating process, reducing the heating cycle to 8 minutes approximately $3\times$ faster than the previous method. While projecting to save over \$593k in scrap for an improved annealing process.
- Led cross-functional launch activities with maintenance, electrical, fabrication, and production teams across Del Rio and Acuña; created process flows, safety procedures, work instructions, and operator training.
- Engineered a mobile lifting system for a roughly 4,000-lb Donaldson Torit dust collector, completing load, pin, bracket, and stability calculations.

NASA VITAL Micro Buoy

Embedded Systems & Electronics Developer | Senior Capstone Project | Texas A&M University

August 2026 – Present

- Develop electronics, embedded firmware, and sensor integration for a modular micro buoy designed to collect environmental data in coastal and river environments.
- Program LoRa communication and system interfaces to transmit temperature, pressure, and humidity data from the buoy to a shore-based monitoring station.
- Develop and integrate sensors, power electronics, battery storage, and solar-charging components while troubleshooting electrical and communication performance.
- Contribute to mechanical design, CAD development, and testing of a stable, sealed, 3D printed buoy prototype.

Manufacturing Engineering Intern

Howmet Aerospace - Del Rio, Tx / Acuña, Mexico

May 2025 – August 2025

- Improved operational efficiency by analyzing workflows and rework processes.
- Applied Lean Six Sigma tools (5 Whys, A3 problem solving, one-piece flow) to drive process improvements.
- Developed and implemented a real-time rework tracking tool to monitor defect trends and support data-driven decisions.

Leasing Agent: University Square Apartments, Asset living - College Station Tx

December 2023 – May 2025

Car Salesman/Consultant: Ford Cecil Attkisson - Del Rio, TX

June 2022 – August 2022

Projects

Cruse Control Car & System (2026), SmartGlow – IoT Smart Lighting System (2025), Kick-It Car – Capacitor-Powered Vehicle (2025), Liquid Level Controller (2025), Sack_O_Games (2022), Expandlet (2022), FRC Robotics Team 4063 (2018–2022)

Skills

Programming/Embedded: Python, C, PLC/HMI Programming, Robot Programming, System Integration, Electrical Troubleshooting, Sensor Integration, and Lean Manufacturing.

Software/Tools: Fusion 360, Autodesk Inventor, SolidWorks, AutoCAD, Multisim, Excel, Quartus Prime, MATLAB, Simulink

Fabrication & Testing: 3D Printing, Laser Cutting, CAD Modeling, Mill/Drill Machines, Oscilloscopes, Circuit Analysis

Languages: English (fluent), Spanish (fluent)

Certifications: Database, Excel, HTML (MyEducator 2024), Simulink Fundamentals (MATLAB 2025)

Organization: SHPE Member, PBE (Past Leadership)