

JAVIER AROCHA

U.S. Citizen

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Professional Summary

Aerospace and Mechanical Engineer specializing in SolidWorks design, manufacturing documentation, and practical mechanical engineering. Experienced in supporting tooling through precise models and drawings that reduce fabrication errors and improve shop-floor communication. Certified in three SolidWorks credentials, including the CSWPA – Drawing Tools. Seeking to apply my CAD and mechanical design skills to a team where I can support product development, improve manufacturability, and grow as a Design Engineer.

Experience

Crew Tool

Orlando, FL

Design Engineer

Sep. 2024 – Sep. 2025

- Performed quality inspections using Hexane testing, FT-IR material analysis, and dimensional verification to ensure tools met engineering drawings and specification tolerances.
- Developed sealant application and removal tools in compliance with Spirit AeroSystems aerospace standards, improving consistency and ease of use on the shop floor.
- Enhanced existing tool designs by improving ergonomics, durability, and manufacturability while maintaining strict industry and customer requirements.

Airgroup Dynamics Inc.

Orlando, FL

Mechanical Engineer

May 2021 – Sep. 2024

- Produced 50+ ASME Y14.5-compliant technical drawings, improving manufacturability and reducing shop-floor rework.
- Established a 3D-printing prototyping pipeline that boosted iteration speed and prototyping productivity by 30%.
- Enhanced regulatory compliance by conducting FAA-aligned quality assurance assessments across multiple aircraft components.
- Increased tooling readiness by auditing and updating 2,000+ capability folders, identifying and resolving gaps in required tooling.

Florida Space Institute

Orlando, FL

Engineer Intern

Jan. 2021 – May 2021

- Supported NASA–UCF research efforts by building and preparing hardware used to study regolith behavior in zero-gravity and sub-freezing environments.
- Supported the regolith research by building hardware for zero-gravity and sub-freezing testing.
- Applied engineering fundamentals to assemble, verify, and troubleshoot experimental tools that enabled collision and material-interaction testing.

Education

University of Central Florida – Bachelor of Science in Aerospace Engineering

May 2024

Miami Dade College – Associate of Arts in Mechanical Engineering

May 2020

Certifications

SolidWorks: CSWA: Associate - 2021, CSWPA: Drawing Tools - 2022, CSWP: Professional - 2023

Six Sigma: White Belt - 2024

Skills

Software: SolidWorks, Fusion 360, AutoCAD, Microsoft Office

Technical: ASME Y14.5 GD&T, CNC machining, manual milling, 3D printing, FT-IR

Languages: English (Fluent), Spanish (Native), HTML (basic), C++ (basic), MATLAB (basic)