

JAVIER AROCHA

U.S. Citizen

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Professional Summary

Aerospace Engineer with 3+ years of production and manufacturing experience in tool design and precision engineering. Expert in SolidWorks CAD, Geometric Dimensioning and Tolerancing (GD&T), and technical documentation standards. Skilled at designing specialized tools and fixtures that improve manufacturing accuracy, production efficiency, and operational consistency in aerospace environments.

Skills & Certifications

Skills:

English & Spanish
Microsoft Office
SolidWorks
Manufacturing
Sheet metal design

3D printing
Tool Design
ASME Y14.5 GD&T
CNC machining
Manufacturing
Fixture Design
PTC Creo

Certifications:

SolidWorks:
CSWA Associate (2021)
CSWP-DT Drawing Tools (2022)
CSWP Professional (2023)
CSWP-SM Sheet Metal (2025)

Six Sigma: White Belt (2024)

Experience

Crew Tool

Orlando, FL

Design Engineer

Sep. 2024 – Sep. 2025

- Designed and developed specialized tool solutions for aerospace production environments, translating customer requirements into functional tool designs
- Performed quality inspections using Hexane testing, FT-IR material analysis, and dimensional verification to ensure tool designs met engineering drawings and aerospace specification tolerances
- Developed sealant application and removal tools in compliance with Spirit AeroSystems aerospace standards, improving consistency and ease of use in the manufacturing environment
- 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

- Designed and documented 50+ specialized aircraft repair tools and fixtures, producing ASME Y14.5-compliant technical drawings that improved manufacturability and reduced shop-floor rework
- Conducted comprehensive tool design audits, reviewing and updating 2,000+ capability folders to identify tooling gaps and ensure production readiness for FAA-regulated aircraft components
- Established a 3D-printing prototyping pipeline for tool design iteration that boosted prototyping productivity by 30% in the manufacturing environment
- Enhanced regulatory compliance by conducting FAA-aligned quality assurance assessments across multiple aircraft components and tools, ensuring production standards

Florida Space Institute

Orlando, FL

Engineer Intern

Jan. 2021 – May 2021

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

Education

University of Central Florida

Orlando, FL

Bachelor of Science in Aerospace Engineering

May 2024

Miami Dade College

Miami, FL

Associate of Arts in Mechanical Engineering

May 2020