

Sebastian Cruz

Manufacturing Engineer, Assembly Integration and Test

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STRENGTHS

- 🔍 **Structured problem solving**
Used 8D, Five Whys, and Fishbone analysis on recurring assembly issues, giving teams evidence based actions and clearer closure.
- ⚙️ **Assembly judgment**
Read drawings and interface data during live builds, then helped production choose practical paths that protected configuration and quality.
- 🏗️ **Cross functional planning**
Connected manufacturing, quality, design, test, and supply chain inputs so milestone risks surfaced before hardware reached a decision point.
- ♥️ **Process improvement**
Applied Lean and Six Sigma ideas to workstation flow and visual controls, making repeatable assembly preparation easier for teams.
- 💬 **Clear technical communication**
Turned shop floor findings into concise status updates, documented actions, and approval requests that earned trust across engineering groups.

SKILLS

Manufacturing engineering

Assembly integration

Integration and test

Engineering drawings

Technical data

Mechanical assemblies

Electromechanical systems

Root Cause Analysis Five Whys

Fishbone Analysis

SUMMARY

Manufacturing Engineer with four years supporting aerospace production, complex mechanical and electromechanical assembly, integration, and test operations. Translates **engineering drawings** and **technical data** into practical shop floor processes, controlled documentation, and production readiness plans. Leads **Root Cause Analysis**, Five Whys, Fishbone or Ishikawa Analysis, and 8D investigations, connecting verified causes with corrective actions, tooling changes, drawing clarifications, and **engineering changes**. Coordinates manufacturing, quality, design engineering, test, supply chain, and program stakeholders through build milestones, schedule constraints, risk reviews, and change decisions. Applies Lean and Six Sigma methods to improve workstation sequencing, visual controls, handoffs, and repeatable assembly preparation. Brings organized technical judgment, clear communication, and hands on problem solving to onsite aerospace operations involving high accountability hardware and test activities.

EXPERIENCE

Manufacturing Engineer II, Aerospace Assembly and Test

Asterion Aerospace Technologies 📅 July 2024 - Present 📍 Torrance, CA

Own **manufacturing engineering** support for electromechanical aerospace assemblies across build, integration, inspection, and functional test. Coordinate cross functional planning, risk review, change control, and shop floor execution for concurrent hardware builds.

- Translated drawings and technical data into shop floor plans for electromechanical aerospace **assembly** execution.
- Led 8D investigations using **Five Whys**, linking verified causes with tooling and drawing changes.
- Built integrated plans with quality, **test**, supply chain, design, and manufacturing stakeholders for concurrent builds.
- Reviewed schedule variance, material constraints, and technical risks before milestone decisions affected execution.
- Applied Lean and **Six Sigma** methods to improve workstation sequencing and visual process controls.
- Supported **integration** testing by evaluating interface drawings, build history, and controlled disposition paths.

Manufacturing Engineer, Aerospace Production

Redwood Defense Systems 📅 June 2022 - June 2024 📍 Carson, CA

Supported aerospace and defense production through daily manufacturing engineering coverage for mechanical builds, **electromechanical** interfaces, controlled documentation, and integration activities. Connected shop floor findings with quality, design, planning, and operations decisions.

- Interpreted drawings, bills of material, specifications, and **technical data** for production questions.
- Facilitated Fishbone and **Root Cause Analysis** sessions for process escapes and assembly defects.
- Coordinated **engineering changes** with design and quality teams across documentation, tooling, and materials.
- Maintained planning inputs for build and test activities, dependencies, risks, and stakeholder updates.
- Used **Lean** practices to standardize assembly preparation and improve inspection handoffs.
- Supported **aerospace** and defense hardware production through controlled manufacturing documentation and daily engineering coverage.

Manufacturing Engineering Intern, Assembly Operations

Pacific Aerospace Manufacturing 📅 June 2021 - May 2022 📍 Long Beach, CA

8D problem solving

Lean manufacturing Six Sigma

Change management

Risk mitigation

LANGUAGES

English Native

Spanish Proficient

MY CAREER



● Manufacturing Engineer II, Aerospace Assembly and Test at Asterion Aerospace Technologies (2.2 Years)

● Manufacturing Engineer, Aerospace Production at Redwood Defense Systems (2 Years)

● Manufacturing Engineering Intern, Assembly Operations at Pacific Aerospace Manufacturing (11 Months)

Supported supervised **manufacturing engineering** work for aerospace assembly operations, production documentation, process improvement, and technical issue tracking. Prepared analysis and shop floor information for senior engineers, quality partners, and production leads.

- Reviewed **engineering drawings** with senior engineers before releasing assembly documentation updates.
- Tracked production issues and organized evidence for structured root cause investigations.
- Mapped **assembly** steps to identify handoff delays between production and inspection teams.
- Prepared planning inputs for build readiness reviews and upcoming test milestones.
- Applied classroom Lean concepts during supervised workstation sequencing and **process improvement** activities.
- Documented technical questions, disposition status, and follow up actions for engineering review.

PROJECTS

Integrated Assembly Readiness Planning 📅 2025

Created a cross functional readiness view for complex aerospace assemblies, connecting material status, technical risks, inspection needs, and test milestones so teams could make earlier execution decisions.

Electromechanical Nonconformance Reduction 📅 2024

Structured recurring assembly issue evidence through 8D and Five Whys methods, guiding corrective actions, tooling updates, drawing clarifications, and controlled return of hardware to production.

LEADERSHIP & AWARDS

- Lean Six Sigma Green Belt recognition, 2024
- Manufacturing engineering contribution recognized for aerospace assembly problem solving, 2024
- Cross functional production support recognition for reliable build and test coordination, 2023

EDUCATION

Bachelor's Degree in Mechanical Engineering

California State University, Long Beach 🎓 GPA: 0 📅 2022 📍 Long Beach, CA

Coursework: *Manufacturing processes, mechanical design, materials science, systems engineering*

CERTIFICATIONS

- Lean Six Sigma Green Belt 📅 2024
- Root Cause Analysis Training 📅 2024

TECHNICAL SKILLS

- **Manufacturing Engineering:** Production engineering, Shop floor operations, Manufacturing process planning
- **Assembly and Integration:** Mechanical assemblies, Electromechanical systems, Complex assembly integration
- **Integration and Test:** Functional test, Hardware integration, Test readiness
- **Engineering Documentation:** Engineering drawings, Technical data, Bills of material
- **Root Cause Methods:** Root Cause Analysis, Five Whys, Fishbone Analysis
- **Corrective Action:** 8D, Corrective actions, Verification steps
- **Lean Improvement:** Lean manufacturing, Six Sigma, Process improvement
- **Planning and Scheduling:** Integrated planning, Production scheduling, Milestone planning
- **Change Control:** Engineering changes, Baseline management, Change management
- **Risk and Analysis:** Risk mitigation, Trend analysis, Variance analysis
- **Aerospace Operations:** Aerospace manufacturing, Defense hardware, Production readiness

PROFESSIONAL AFFILIATIONS

- Association for Manufacturing Technology participant
- Society of Manufacturing Engineers professional member

ADDITIONAL INFORMATION

Work Status : Authorized to work in United States. No sponsorship required.

REFERENCES

AVAILABLE ON REQUEST