

LUC ROCHAT

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SUMMARY

Mechanical Engineer and Engineering Manager with 7+ years of experience delivering aerospace and defense hardware through design, prototype, and manufacturing phases. Skilled in leading multidisciplinary teams and providing hands-on technical design support for flight-test and production hardware. Experienced in composite tooling, additive manufacturing, and AS9100 process development with a proven record of driving rapid design-to-flight timelines. Recognized for developing company-wide drawing and documentation standards and for bridging design, manufacturing, and quality disciplines to ensure program success.

EXPERIENCE

2018 – Present | KIHOMAC - Layton, Utah

Engineering Manager | April 2024 – Present

- Manage 2-3 concurrent projects while providing oversight to 3-6 engineers and programmers.
- Coordinate with program management to align technical objectives with budget and schedule milestones.
- Provide technical design and review support for both R&D and tools required for build-to-print manufacturing projects.
- Directed the development and implementation of the company-wide ASME Y14-compliant drawing/CAD templates and supporting documentation.
- Manage day-to-day execution using Azure for tasking, burndown tracking, and priority alignment across engineering and manufacturing teams.
- Trained engineering team on ASME Y14-compliant drawing creation to prevent manufacturability and inspection issues.
- Trained technicians on advanced metrology tools (e.g., FARO arm, optical comparator) to quickly identify issues and verify conformance.

Mechanical Engineer | July 2023 – Present

Roles: Lead Design Engineer, Lead Manufacturing Engineer, Additive Manufacturing Lab Manager, Test Engineer

- **Project Liberty: Lead Engineer** – Adaptable and economical UAV platform focused on scalable production.
 - Directed system design across multiple product lines and coordinated with electrical/systems teams to integrate CCAs, wire harnesses, sensors, and plan for a wide range of future payloads.
 - Designed and released composite molds, trim/drill fixtures, and inspection gauges ensuring dimensional accuracy during the critical prototyping phase.
 - Collaborated with a university research team to support aerodynamic optimization and motor/propeller selection, incorporating analysis and test feedback into mechanical design decisions.
- **Mojave Pod: Lead Engineer** - Converting an internal carry cargo pod for external carry filming capable of supersonic flight.
 - Led rapid R&D effort converting KIHOMAC's F-35 internal carry pod into an externally mounted pod with observation windows.
 - Designed observation window modification capable of withstanding the harsh environment of supersonic flight.

- Directed mechanical design and fabrication and coordinated FEA from concept to successful supersonic flight in 33 business days.
- Supported multiple flight test trips with an external partner, coordinating test preparation, inspection, configuration control, and logistics.
- **Manufacturing Execution & Cross-Functional Coordination:**
 - Kept low-rate production builds on schedule and under budget by coordinating manufacturing execution across QA, supply chain, inventory, and program management.
 - Worked directly with QA to define inspection strategies, resolve non-conformances, and close the loop on drawing/work-instruction issues through the corrective action process.
 - Tracked risks, actions, issues, and decisions (RAID) for every project with a custom template I helped develop.

Jr. Mechanical Engineer | July 2022 – July 2023

Roles: Manufacturing Engineer, Additive Manufacturing Lab Manager

- **FFFI Reverse Engineering for Legacy LRU (B-52 Sustainment): Lead Mechanical Engineer**
 - Used CMM, CT scanning of OEM hardware, and legacy documentation to design a form, fit, function, and interface (FFFI) LRU housing that was validated through environmental qualification testing.
 - Performed system-level tolerance analysis to ensure interface compatibility with mating components and aircraft installation requirements.

Mechanical Engineering Intern, May 2018 – July 2022 (3800+ Hours)

- Developed inspection methods and plans for flexible, complex composite parts.
- Developed non-operating drop-in replacement housing for the M61 Vulcan cannon for weight and balance purposes.

TECHNICAL SKILLS

Mechanical Design & Manufacturing: SolidWorks; GD&T (ASME Y14.5); composite tooling; machining and assembly support; additive manufacturing; AS9100 documentation.

Inspection & Quality: Dimensional inspection; inspection planning; first article inspection (FAI) packages; conformance verification methodology.

Program Leadership: Team leadership (3–6 engineers); multi-project execution; schedule/budget alignment with program management; engineering policy/process standardization.

Certifications: FAA Part 107 Remote Pilot Certificate.

EDUCATION

B.S. in Mechanical Engineering - University of Utah, Salt Lake City, Utah | May 2022

- Senior Design: Developed a 3D-printable packaging system for military electronic equipment.