



JOB DESCRIPTION FOR HIRE

Title: Imaging Payload Design Mechanical Engineer

Position Description: The Overwatch Imaging Payload Design Mechanical Engineer will design, prototype, test and produce mechanical and electro-optical imaging system assemblies to collect stabilized multi-camera imagery from high-performance aircraft.

Company Description: Based in beautiful Hood River, Oregon, Overwatch Imaging is a small business focused on bringing the benefits of aerial imaging to large-scale civil, commercial, and special-purpose applications. Overwatch makes customized imaging payloads designed for long-endurance aircraft. Our products allow mid-sized UAS and small manned aircraft to collect precision survey maps, conduct autonomous search and detection, and provide real-time image-based intelligence to users. Overwatch payloads feature autonomously gimballed multi-band cameras combined with onboard image processing and AI software, which we leverage to reduce operator workload, accelerate data processing workflows, and identify hard-to-find small signals from large datasets.

Major Areas of Responsibility:

- **Mechanical Payload Design:** Uses SolidWorks and hands-on experiments to develop multi-camera mounting, stabilization, signal routing, environmental management and aircraft integration solutions for airborne imaging payloads with size, weight, power, cost, and schedule constraints. Contributes with variable levels of fidelity to feasibility studies, new product development, and low-rate production optimization.
- **Imaging Payload Rapid Prototyping:** Builds, procures and tests components to quickly assess design feasibility and performance characteristics of novel imaging systems.
- **Camera Operation and Selection:** Supports high-level imaging system conceptual design, operates cameras fluently and understands image quality considerations.
- **Component Sourcing and Supply Optimization:** Identifies new commercial off-the-shelf components and new manufacturing techniques to drive innovation and reduce system cost. Ready to build assemblies by hand or oversee outsourced build contracts.

Required Knowledge, Skills and Abilities:

33 NICHOLS PARKWAY, Suite 390
HOOD RIVER, OR 97031 USA



- ***Experience and Education:***
 - Formal education in mechanical engineering, electronic systems, optics, or related fields.
 - Experience in aerospace and defense, particularly with mid-sized unmanned aircraft and/or airborne camera systems.
 - Experience with electro-optical remote sensing systems, camera stabilization, visible and infrared camera operation.
 - Familiarity with mechanical part manufacturing techniques and rapid prototyping methods.
 - Bachelor's degree required
- ***Technical Competence:***
 - SolidWorks CAD Software
 - Structural and Electromechanical Design for Gimballed Optical Systems
 - Visible and Infrared Camera Selection, Operation and Stabilization
 - Aircraft Payload Integration, Motion Control and Vibration Mitigation
 - Prototype and LRIP Product Realization
- ***Character Attributes:***
 - Thrives in a dynamic, fast-paced small business work environment
 - Collaborates well in a small team and with customers
 - Ready to accept new challenges
 - Enjoys hands-on work
 - Takes pride in seeing work product reach the field

Location: This position is based in Hood River, Oregon.