

Job Description for Aeronautical Engineer

Job Title: Aeronautical Engineer

Department: Engineering

Reports To: HW Lead

FLSA Status: Exempt

Summary

Conduct general engineering and design of aircraft structures and aero-mechanical systems on small unmanned aerial systems (UAS) with both fixed wing and rotary wing design.

Essential Duties and Responsibilities

- Engineering and design of aerodynamic structures and mechanical systems for small UAS and payload systems.
- Creation of new flight vehicles from a provided list of specifications.
- SolidWorks modeling of components and designs.
- Simulation-based analysis to prove design before prototyping.
- Analysis and material selection of designed components, investigating the use of new materials, or improving existing materials.
- Designs targeting highly constrained size, weight, and power environments.
- Attend and present design reviews.
- Transition from SolidWorks models to rapid prototyping and production tooling.
- Facilitate rapid creation of initial parts, learn in-house processes.
- Work closely with other engineers, technicians, manufacturers, and suppliers supporting current designs.
- Develop manufacturing procedures for designed components.
- Support flight test operations, and develop bench and flight test procedures.
- Some travel may be required.
- Use industry standards for drawings and drawing control systems.

Required Skills

- A MS degree in Aerodynamics or Aeronautical/Mechanical Engineering, or equivalent.
- Practical experience in Aerodynamics, Mechanical Systems, Materials.
- Experience with air foil modeling (e.g., XFOIL), or equivalent.
- Experience with MATLAB and Simulink based modeling.
- Able to maintain a security clearance.

Recommended Skills

- Extensive experience in the UAS industry
- Experience with SolidWorks
- Hands on design experience
- Strong interpersonal skills in a multidisciplinary environment
- Autopilot development or tuning experience
- Gimbaled and/or mechanized camera systems experience
- Composite layup experience, autoclave, tooling creation experience
- Experience with remote controlled aircraft and helicopters
- Waterproof / water-resistant enclosure design experience
- Mechanical repair skills, including composites construction and fabrication
- Electrical repair skills, including soldering and familiarity with a multimeter