



Sr. Mechanical Engineer **(Boston)**

Top Flight Technologies (www.topflighttech.com) – the first commercial UAV manufacturer to utilize a hybrid propulsion engine for extended flight and enhanced payloads is seeking Senior Mechanical Engineer(s) to be part of its engineering team. We are looking for individuals that have core electrical engineering and problem-solving expertise, and that can work individually and on team project assignments. The work environment is centered on agile development, where designs are quickly tested, problems resolved, ideas improved, products built and tested. Candidates should have a passion for building innovative product solutions.

Yes, this is a well-funded startup; the work is demanding, and also really fun grasping new skills while working with other bright and energetic engineers and team members.

Essential Responsibilities/ Job Duties:

- Responsible for design and development of mechanical/electromechanical systems.
- Generate concepts and solutions for new products as well as provide engineering support for existing products.
- Responsible for activities which may include leading, participating, or supporting.
- Lead concept, planning, design and execution stages and risk assessment.
- Prototyping/testing, Design reviews, Verification & Validation.
- Participate in the all phases across multiple projects of design; DFMA, cost reductions.
- Participate with cross functional team throughout the product development process.
- Lead Design of Experiments (DOE), Design Specifications, Process Qualification, Validation Protocols/Reports, FMEA, and Statistical analysis.
- Research and recommend design options and perform experiments for potential design feasibility or application.
- Evaluate product non-conformances and recommend design modifications.
- Evaluate, test, and review designs to verify performance to requirements and specifications.
- Investigate and determine root cause of emerging design, manufacturing or material defects.
- Train, mentor, and lead other engineers and technicians to ensure high standard of work.
- Interact with external and internal design, quality, and manufacturing resources to design for manufacturability and test, reliability, and cost-effectiveness.
- Analyze and provide feedback on collaborative design review forum.
- Enable a design strategy that leverages modular design platforms to promote commonality, portability, and reusability of core elements, documentation, tools, and techniques.

- Lead thermal analysis, thermal management system design and thermal testing.

Qualifications:

- Bachelor's or Master's degree in Mechanical Engineering, Aerospace Engineering or equivalent from an accredited university.
- 10+ years of experience in mechanical design and manufacturing.
- 10+ years of experience with robotics or complex electro/mechanical systems.

Required Skills:

- Knowledge of heat transfer, thermal management, and cooling of motors and/or electronics.
- Experience using thermal simulation software for transient and steady state analysis.
- Experience in thermal testing techniques and instrumentation.
- Experience resolving heat transfer issues using theoretical analysis and modeling.
- Experience in strength of materials, materials selection, design for vibration environments and the ability to apply those principles to unique mechanical design challenges.
- The ability to perform structural analysis using industry simulation tools.
- Ability to build working prototypes, utilize 3D printing and other machinery for iterative design
- Experience with Solidworks or Pro-E and AutoCAD.
- Experience designing parts for plastic injection molding, sheet metal, CNC machining, laser cutting, assembly strategies and finishing techniques.
- Experience with rapid prototype design and build for proof of concept and usability testing.
- Experience in design and manufacturing – especially motors, gears, electro-mechanical, sensors.
- Experience with DOE
- Strong Computer skills (MS Word, Excel, PowerPoint, Outlook, Internet).
- Self-Starter; Highly-Organized; Detail-Oriented; Highly-Motivated; Team Player; Analytical; Results-Driven; Initiative; “Can-Do” Attitude.
- Experience designing for high volume manufacturing and/or automated assembly.
- Experience with unmanned systems (Fixed wing & VTOL platforms), flight controllers, power systems, sensors, navigation, communications, and RC based solutions all a plus.

What's in it for you?

- Work side by side with a world-class technology and business leadership team that is defining new markets in the growing domain space of unmanned systems and where the solutions are recognized as industry leaders.
- Tremendous growth opportunity; competitive compensation package including base salary, plus bonus, stock options and benefits.

You must be authorized to work in the United States on a full-time basis for any employer.

Please forward cover letter and resume to jobs@topflighttech.com for consideration.

No agencies please.