



<https://windlift.com/careers/aircraft-design-engineer/>

Aircraft Design Engineer

Description

Windlift's mission is to produce energy for a sustainable civilization, which we believe is the defining challenge of our time. Our approach harnesses wind energy using 90% less material than traditional turbines and will cut the cost of wind energy in half. We have successfully demonstrated the core technology and are expanding our team to:

- Produce a fully functioning tech demonstrator
- Develop a production-ready design for our early-adopter government customers
- Design, build, and test a commercial offshore system

If you are passionate about our mission and want to join a team developing technology with the potential to produce scalable, low-cost sustainable energy, we'd like to talk with you.

Windlift is expanding our APG Aircraft Design team and is hiring a Design Engineer to support our team. The APG Aircraft Design team is responsible for the development of all airborne systems, sub-systems and structures for Windlift's APGs, including design of primary and secondary structures, propellers/turbines, and flight control actuator, power electronics, and sensor integration.

This position will support the Aircraft Design team by performing design of aircraft structures and related components primarily using composite materials such as carbon fiber/epoxy and fiberglass/epoxy. This position will also support the team by developing tooling designs and assembly jigs to ensure consistent high quality fabrication and assembly of composite parts and structures. Additionally, this position will develop test procedures and conduct structural and life cycle testing of prototype aircraft structural components. The ideal candidate will have experience with aircraft composite structures design and structural analysis as well as experience with a variety of composite manufacturing processes and techniques which will guide design and analysis efforts. Structural analysis experience will include the application of methods ranging from hand calculations to 3D Finite Element Analysis to composite structures. As an APG Aircraft Design Engineer you:

Employment Type

Full-time

Job Location

Durham, NC

Date posted

August 9, 2023

Base Salary

\$ 85000 - \$?

- Have a BS in Aerospace or Mechanical Engineering with 2+ years of experience, preferably in an industry (non-academic) role applying your skills to aircraft and/or automotive structural design, analysis and testing with composite materials.
- Have experience developing solid models of parts and assemblies using CAD, preferably using CATIA V5 or equivalent solid/surface modeling software.
- Have practical experience designing, fabricating, and testing a high-performance system.
- Have experience designing tooling and assembly jigs for composite parts fabrication, assembly and testing.
- Have an understanding of composite structural analysis, including the differences between composite structures and structures using isotropic materials such as metals.
- Have a strong understanding of manufacturing methods (ideally for composites) utilized both in prototyping and production and how selected manufacturing methods impact both design decisions and probable failure modes for the structures.
- Love to work on difficult problems, build cool things, experiment at the edge of what is possible, learn new skills, and share your experience with the team.
- Look forward to working with a diverse team of engineers, builders, dreamers, and doers.

The ideal candidate will also:

- Have demonstrated experience modeling and analyzing composite structures using

Finite Element Analysis tools such as FEMAP/NASTRAN as well as applying hand calculations/handbook methods where appropriate.

- Have practical experience with analysis of composite structures subjected to both static and dynamic loads.
- Be comfortable developing test procedures and conducting structural

testing of prototype aircraft structural assemblies and correlating structural test results with structural analysis results. This is an incredible opportunity to join Windlift at an inflection point in growth and make a real contribution to our mission of producing energy for a sustainable civilization.

We cultivate a culture of inclusion for all employees that respects their individual strengths, views, and experiences. We believe that our differences enable us to drive innovation, make better decisions, and accomplish extraordinary things.

Medical, dental and vision benefits are provided. Windlift is located close to Raleigh, Durham, Cary, and Research Triangle Park, NC, all of which are great places to work, live, and play.