**Sr. Design Integration Engineer**

at Overair, Inc.

Santa Ana, CA

**Company Overview**:

At Overair, we are dedicated to bring next generation sustainable air transportation to everyone.  Our answer is Butterfly, an all-electric vertical takeoff and landing (VTOL) aircraft designed to safely and affordably carry passengers over traffic and congestion.  Butterfly leverages over two decades of VTOL aircraft development, patented VTOL technology, and flight vehicle experience.

Overair believes in the lofty goals of sustainable air mobility and we are committed to solving the hard challenges along the way.  We are building an industry leading team covering an expanse of skills, talents, and expertise in order to build a superior electric VTOL aircraft.  If you enjoy solving difficult problems, and seeing your ideas and visions expressed in flight hardware, we want you on our team.

**Job Overview**:

Overair is seeking an experienced a Senior Design Integration Engineer to support integration of systems into an eVTOL aircraft.  This role will focus heavily on nacelle-related systems, but may include other areas of the aircraft. Qualified candidates will be responsible for defining the aircraft configuration within a CAD/PLM environment to progressively increasing levels of detail as the program matures.

This role requires the candidate to thrive in a high paced environment and be comfortable with the design, development, and test life cycle of rapid aerospace R&D.  This role will include interfacing with engineering management, certification authorities, and fellow design engineers and analysts, so strong communication and inter-personal skills are required.

**Roles and Responsibilities**:

* Drive integration of various systems into the aircraft design within a CAD/PLM environment
* Generate design data for various stages of maturity, from conceptual installation layouts through detailed component drawings.
* Integrate system routings, including low- and high- power electrical systems, fluid systems, and pneumatic systems.
* Generate and document interface control data
* Coordinate with suppliers and other external teams to ensure their CAD/PLM data is properly implemented
* Provide design feedback to other teams to resolve integration issues related to performance, manufacturing, certification, maintenance, etc.
* Support trade studies on options for architectures, installations, and components.
* Deliver design artifacts for various program reviews

**Required Qualifications**:

* 5+years of professional industry experience
* Extensive experience laying out and integrating aircraft system installations, with considerations for manufacturing, certification, and maintenance.
* Extensive experience with 3D CAD/PLM design tools (e.g. CATIA V5/V6, Solidworks, NX, etc.).
* Experience routing electrical harnesses, fluid lines, and pneumatic ducts.
* Experience with industry standards and methods (e.g. ASTM, SAE, RTCA).
* Deep understanding of the technical requirements for a certifiable design. This includes a working knowledge of FAA 14CFR Part23 (CS-23), Part 27, Part 29, Part 33 or equivalent certification rules and the associated advisory material and industry consensus standards, as well as how they translate into a certified design.

**Desired Qualifications**

* BS in Aerospace Engineering, Mechanical Engineering, Electrical Engineering or a related field.
* Experience with Part 23 eVTOL aircraft.
* Experience with aircraft propulsion installations and nacelle-related systems, including electrical, hydraulic, pneumatic systems.
* Experience with nacelle primary and secondary structure, including engine mounts, pylons, cowl doors, fixed cowls.
* Experience with composite structure.
* Experience generating detailed drawings using GD&T to ASME standards.
* Experience with requirements management systems (e.g. JAMA, Polarion, DOORS).
* Ideally the candidate has worked through the certification process and has working-level familiarity with both the design and validation stages of a certification program, including but not limited to: requirements definition; program planning; developing qualification test plans; and conducting qualification testing for the FAA or FAA-appointed designees. This includes working closely with company or external DERs, FAA DARs and generating high-quality artifacts to support the certification program.