**Staff Mass Properties 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 is looking for a Mass Properties engineer to support the weight management of the Butterfly aircraft. In this role you will support the development of an advanced aircraft levering a novel electric propulsion system though the development lifecycle.

**Roles and Responsibilities**:

* Performs Mass Properties requirements definition.
* Researches, plans, analyzes and measures designs and hardware for system weight and center of gravity.
* Assures systems can operate within mission envelops.
* Maintains weight and CG metrics for individual configurations, and documents in various technical publications.
* Perform aircraft mass properties (weight, center-of-gravity, and inertia) analyses for multiple configuration and program phases.
* Estimate, develop and verify weight, center-of-gravity and inertia assessments of detail parts, sub-assemblies, assemblies and the final products using the principles of mathematics, geometry, statics, and computer aided three-dimensional interactive analysis (CATIA) and measuring equipment.
* Develop and maintain weight and balance handbooks that support air vehicle flight safety and flight clearance requirements.
* Prepare weight and balance control system forms.

**Required Qualifications**:

* Bachelor's or Master's degree from an accredited college or university
* Prior experience conducting Mass Properties analysis and measurement experience
* Experience with CAD software - preferable CATIA 3DExperience

**Desired Qualifications**

* Development of custom tools and scripting (VBA, Python, SQL, Matlab)
* Prior weight experience with flight test support and development activities with a multitude of evolving configuration changes.