

**POSITION TITLE:**

Sr. Aeronautical Engineer

**LOCATION:**

Calgary, Alberta, Canada

**SUMMARY OF POSITION:**

Airdyne has an immediate opening for a Design Engineer to provide sustainment support, liaison, design, and integration to both its developed core product line and new products.

The Design Engineer will perform duties to support design, integration, and sustainment of the SABIR system. The Team Member will support customers with design, integration, and sustainment engineering solutions. Represent Engineering through proactive participation and communication with other Departments, Vendors, and Customers. This Team Member will provide actions (e.g., Research and Development, hardware and drawing investigations, consultation with other Engineering Personnel, and answer Manufacturing Shop Queries / Questions) and results (e.g., drawing changes, process improvements).

This position requires a “Team-Player” with excellent communication skills and abilities to be able to communicate and interchange ideas and knowledge effectively with all Team members at Airdyne as well as customers.

This position will require travel to support company or customer requirements, which may include installation, training and testing anywhere in the world.

**DUTIES AND RESPONSIBILITIES:**

- Support the development of weight-optimized, compliant airworthy components and structural assemblies, which satisfy the contractual design criteria as well as design producibility requirements.
- Perform structural analysis of primary and secondary structure and systems. Independently develop technical solutions to a wide range of difficult problems with solutions that are imaginative, thorough, and practicable and consistent with organization objectives.
- Perform detailed 3D designs; generate CAD drawings and related documents, and support manufacturing and assembly of components.
- Create, review and approve drawings, structural substantiation reports, and other engineering materials.
- Must be able to plan and organize time to work productively and efficiently while being able to adjust to multiple demands. Assume ownership of tasks and drive to closure quickly and efficiently. Manage and track multiple priorities while maintaining a focus towards common project goals.
- Good teaming and communication skills required.
- Team leadership experience is required. Strong communication skills and proficiency with standard PC desktop applications is required.
- Document and troubleshoot component anomalies
- Technical oversight of staff as a mentor
- Participate and present in internal and external (customer) design reviews

**REQUIRED QUALIFICATIONS:**

- Minimum education of a Bachelor's degree in Aeronautical engineering with credentials.
- Min 10 – max 20 years' of direct Engineering design experience, in the spacecraft or aerospace industry, with project ownership.
- 5-10 years working experience with classical hand stress analysis methods.
- Experience in technical report writing and must have excellent communication skills, be fluent in English (spoken and written) and proficient in MS Word, MS Excel, MS Teams.
- Must be able to work effectively in a team environment.
- Design work starting at the conceptual level, maturing into full 3D modeling, validation with FEA analysis and hand calculations, and continuing into manufacturing.
- Possess in-depth knowledge of and applicable experience with aircraft structural analysis methods, including hand calculation experience for mechanical joints. Using resources such as MMPDS, Bruhn, Roark, etc., aircraft fasteners, materials, sheet metal assemblies, machined fittings.
- Experience with the structural and fatigue analysis of mechanical and electronic components. System and component level static, vibration, acoustic, modal, shock test experience with aerospace flight hardware.
- Appropriate Knowledge of regulatory (FAA and/or military) issues related to aircraft design and analysis and their impact on conformity and compliance is required (i.e., certification, qualification).
- You must provide evidence of proficiency in performing advanced stress analysis capability using NASTRAN and finite element modeling.

**DESIRED QUALIFICATIONS:**

- 5 years' of experience with CAD Software (preferably SOLIDWORKS) with practical experience and understanding of drafting standards (ASME Y14.100).
- 10 years working experience with detailed FEA methods and/or NASTRAN (FEMAP) finite element modeling.
- Experience with composites (fiberglass/carbon fiber), and honeycomb and solid laminate construction.
- Experience with fracture mechanics.
- 5 years working experience with government and Federal Aviation Authority (FAA) regulations and their impact on conformity and compliance (i.e., certification, qualification).
- Experience testing aerospace components/assemblies to validate conformance.
- Design experience with sensors (optical/RF/Radar), avionics, and other complex kinematic systems.
- Working knowledge of applicable manufacturing processes such as machining, finishing, and rapid prototyping.
- Experience using test instrumentation and control components (e.g. pressure transducers, thermocouples, relays, solenoid valves, etc.) Providing test input/instrumentation data to personnel and collaborating with engineering personnel to interpret/correlate test results.



- Understanding and incorporating other applicable mechanical (thermal, materials, etc.) and system level requirements/parameters into the stress analyses.

**ELIGIBILITY OF APPLICANTS:**

Candidates for this position must conform to Canadian Controlled Goods Regulations. Candidates must be a Canadian citizen, lawful permanent resident of Canada.

Candidates for this position must have nothing in their background that precludes international travel and/or access to any military/Government installation.

**JOB TYPE:** Full time

**SALARY:** Based on qualifications

**BENEFITS:** Health, dental, vision care

**TRAVEL:** Less than 10%; international to USA, etc.

**REMOTE OR ONSITE:** Onsite

**RELOCATION:** Yes

**INTERVIEW TYPE:** Telephone and Company Site

**All applicants must include a cover letter and salary requirements to be considered.**

Cover letter must provide the following:

1. Introduction
2. Reason that individual would be the best fit for the position
3. Questions about the position.
4. Salary Requirements

Airdyne participates in E-Verify employment authorization.

Airdyne is compliant with Equal Opportunity for Workers with Disabilities. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, pregnancy, sexual orientation, gender identity, national origin, disability, age, genetic information, or protected veteran status.