

Job Description

Role: Mechanical Engineer (Spacecraft Structures & Mechanisms) **Location:** Remote initially, transitioning to Ahmedabad within 6 months. **Type:** Full-Time

About Orbit Grid

As global data processing demands outpace terrestrial land, power, and environmental constraints, Orbit Grid is pioneering the next tier of digital infrastructure: multi-tenant, shared orbital datacenters. We are building the foundational hardware and software stacks that allow high-performance, server-class compute infrastructure to be deployed, shared, and scaled directly in space.

The Engineering Challenge

We work at the intersection of aerospace, high-density compute, and systems engineering to build spaceborne hosting capabilities. Our platforms integrate heavy, power-dense, multi-blade server hardware into tightly constrained spaceborne form factors. These structures must survive the extreme acoustic and vibrational loads of launch and operate reliably in a zero-gravity vacuum environment.

Your role is to design and validate structural solutions that ensure survivability during ascent, and mechanism designs that guarantee precise deployment of large-scale solar arrays and radiator geometries in orbit. You will deal with complex kinematic constraints, vacuum tribology (friction), and mass optimization.

What You Will Do

- **Structural Design & CAD:** Lead the mechanical design of the primary satellite bus, avionics brackets, and complex compute-payload enclosures.
- **Structural Analysis (FEA):** Perform static structural, modal, and random vibration analysis of the satellite bus and payload structure to ensure positive margins of safety against launch loads.
- **Manufacturing & DFM:** Bridge the gap between CAD and reality by working directly with fabrication and manufacturing partners in Gujarat to produce flight-ready hardware.
- **Mechanism Design:** Design and simulate deployment mechanisms (solar arrays, antennas, or radiators) using principles of Kinematics and Theory of Machines.

Qualifications

- **Base Qualifications:** 1–2 years of professional experience in mechanical design, CAD modeling, and structural analysis. Strong command of SolidWorks, Siemens NX or other CAD software. Deep understanding of Strength of Materials and Solid Mechanics.
- **Advanced Qualifications:** 4+ years of experience engineering flight-ready aerospace structures or high-vibration automotive components. Proficiency in industry-standard solvers (Ansys Mechanical, MSC Nastran, or Siemens Simcenter 3D) and calculating stress margins/torque requirements from first principles.

Compensation and Benefits

- Initial monthly stipend during the remote onboarding period.
- Substantial founding-team equity package with standard vesting terms.
- Full-time salary matching local deep-tech standards upon relocation to Ahmedabad.
- Relocation assistance to Ahmedabad within the 6-month window.

To Apply: Send your CV, a portfolio demonstrating structural analysis/mechanism design, and a brief write-up to contact@orbitgrid.in