

Astrogate Labs is a space-technology start-up based in Bengaluru, building core technologies in laser communication terminals and networks for small-satellites. Astrogate Labs aims to simplify, reduce cost of communication, and enable satellites send more data to ground. We have developed one of the industry's smallest optical communication terminals targeted for small satellite use, further scaling our products and aiming for our first satellite mission. We aim to revolutionize satellite communications and support the growing satellite downlink needs with a network of optical ground stations and in-space relays using the technologies developed in-house.

Why Join Astrogate Labs?

- **Work on cutting-edge technology:** Build laser communication systems that are 100x faster than traditional RF, deployed on satellites and defense platforms and the only scalable solution for building inter-planetary internet
- **Real impact:** Your work will directly contribute to India's space capabilities and national security applications
- **Ownership:** In a lean & agile team, you'll have significant responsibility and visibility across the entire product lifecycle
- **Learning:** Work alongside experienced aerospace engineers and advisors
- **Growth:** Be part of a rapidly scaling startup backed by marquee investors, with clear pathways to leadership roles

Our Culture

We're a startup, which means hustle is part of the DNA. Expect fast iterations and the need to be resourceful.

We value:

- Technical excellence with a bias for action
- Collaborative problem-solving across disciplines
- Curiosity and continuous learning
- Pragmatism balanced with innovation

Job Title: Electronics Engineer II

Duration: Full-time

Location: Sahakarnagar, Bengaluru

Qualification: BE/BTECH/ME/MTECH in Electronics & Communication or Electrical engineering or any other related field with 3+ years of relevant experience.

Job Responsibilities

- Design and develop Analog, Digital and Mixed Signal boards with industry standards
- Work in end-to-end design and bring up of boards, i.e., from requirements, parts selection, schematic capture, PCB layout and design and board bring-up & integrated tests
- Work on component selection, derating and FMECA for all board designs
- Interface and collaborate with system, hardware & software engineers to define functional requirements, architecture and optimize electrical circuit design of the PCB's
- Apply EMI/EMC mitigation techniques while designing PCB's
- Implement power and thermal management solutions
- Implement best practices and industry standards in PCB design for satellite electronics hardware
- Simulate analog circuits in simulation software such as Tina-TI / LTSpice and others
- Collaborate with procurement team & vendors for manufacturing of PCBs, handling inventory of electronics components & packages
- Responsible for developing and executing test plans and work on board bring-up activities in a team setting

Required Skills/Experience

- 3+ Years experience in Electronics Design field
- Strong understanding of Analog and Digital Design
- Familiarity with communication protocols such as RS-422, RS-485, CAN, I2C, SPI, UART
- Knowledge on embedded systems functional testing & debugging
- Familiarity with implementation of high-speed interfaces, LVDS, SERDES
- 3+ Years of working with any ECAD tools
- Experience in building high-speed multi-layer PCBs employing SoC's FPGAs, DDR, Ethernet, USB, SRAM, Micro SD, Flash memories, etc.
- Understanding of signal integrity and power integrity concepts
- Hardware debug experience, including familiarity with tools such as the oscilloscopes, logic analyzers, and signal generators.

Desired Skills/Experience

- Prior PCB design experience for aerospace/ satellite systems
- Experience with MIL-1553 & Space Wire interfaces
- Experience with Embedded C, Arm Cortex, Zynq SoC's

- Experience with designing High-Speed Mixed signal boards
- Knowledge of various EMI/EMC standards used in Industry
- Experience with SMD rework/soldering for quick debug/fixes
- Knowledge of industry standards for PCB design & PCB manufacturing processes

Other Requirements

- Motivated to work within a multidisciplinary team in a fast-paced environment
- Self-driven desire to learn more & continuously upskill themselves
- Ability to deal with challenges, and work out solutions in a team setting
- Critical thinking, ability to critique design and make independent decisions
- Relentless pursuit of excellence in all aspects of work
- Strong interpersonal and organization skills to enable working in a dynamic team
- Strong verbal and written communication skills

Benefits

- Health Insurance coverage
- Flexible working hours
- Opportunity to publish research on behalf of Astrogate Labs in national and international conferences

If you like working in a fast-paced environment with a talented multi-disciplinary team on developing and maturing state-of-the-art LaserComm systems, then this role might be for you.

Please send your resumes to career@astrogatelabs.com.

Astrogate Labs is an equal opportunity employer. We celebrate diversity and are committed to creating an inclusive environment for all employees.