Mechanical and thermal engineer

Work environment

For more than 20 years, EmTroniX is designing and producing advanced electronics and embedded software for NewSpace applications. We are gathering seven fields of expertise in-house gathering unique experiences and extended technical knowledge in electronics, embedded software, digital signal processing and telecommunication systems design. Recently, EmTroniX decided to focus on the development and commercialisation of its new products portfolio. We are an energetic, human-sized and innovative engineering company with more than 35 international employees.

We are seeking a talented mechanical and thermal engineer to join our team, focusing on the design and implementation of our advanced telecommunication payloads mechanics. In this role, you will play an essential part in ensuring the reliability, performance, and durability of our payloads in the harsh environment of space. You will be responsible for designing but also conducting thermal and mechanical simulations to optimize the design and ensure its resilience to the rigors of space travel.

Key responsibilities

- Design, develop and implement a variety of mechanical assembly, systems, and/or parts primarily for hosting our satellite based electronic subsystems, considering factors such as structural integrity, thermal management and weight optimization.
- Collaborate closely with cross-functional teams including electronics engineers, systems engineers, and manufacturing specialists to ensure seamless integration of mechanical components into overall satellite systems.
- Generate detailed design documentation, including drawings, specifications, and analysis reports, to support manufacturing and testing processes.
- Formulate conceptual design of space products and systems to meet customer requirements.
- Use advanced mathematical models or other computer analysis methods to simulate, evaluate, or optimise design, according to customer engineering requirements.
- Perform tests at system level and analyse results, write consistent technical reports of findings and recommendations.
- Create, implement and maintain common standard work procedures across the organization.
- Collaborate with customers to establish specifications, performs analysis, and plan performance testing.
- Analyse test results for consistency with performance predictions and for compliance to system requirements.

Job requirements

- Common sense and strong analytical and problem-solving skills Excellent skills in Mechanical Design and Thermal Simulation/Analysis using CAD software (SolidWorks, CST).
- Efficient Structural Simulation/Analysis using Abaqus.
- Excellent communications skills both written and oral in English and/or French
- Passion for space exploration and a desire to contribute to the advancement of NewSpace technologies.
- Ability to work in a team environment with minimal supervision
- Master’s degree in Mechanical & Thermal Engineering or equivalent
- Over 2 years relevant experience

Preferred skills

- Hardware/system design, tools, debug, lab experience and vendor interface
- Knowledge & understanding of Electronics constraints
- 3D printing management
- Project management skills in multi-partners environment
- ESA documentation experience & ECSS standards
- Experience in Satellite Space Engineering or Payload development

Interested in this job offer? Don't hesitate to send us your resume at info@emtronix.lu