



# NEWSPACE SYSTEMS

12 CYCLONITE ROAD, THE INTERCHANGE, SOMERSET WEST, 7130, SOUTH AFRICA  
+27 (0) 21 300 0160 | [MARK@NEWSPACESYSTEMS.COM](mailto:MARK@NEWSPACESYSTEMS.COM)

## **Graduate Design Engineer** **(Mechanical / Electronic / Mechatronic)**

JOB TYPE	LOCATION	REPORT TO
Full-Time	South Africa, Somerset West	Engineering Lead

### KEY PURPOSE OF JOB

Ready to launch your career in the space industry? Join NewSpace Systems (NSS), a cutting-edge manufacturer of advanced satellite sub-systems and components based in Somerset West, Western Cape. We're on the lookout for Electronic, Mechatronic, or Mechanical graduates eager to kickstart their careers in a dynamic and exciting environment.

As a Graduate Design Engineer at NewSpace Systems, you'll play a key role in the development of innovative, high-reliability products for the global space industry. Working within a multidisciplinary team of engineers, you'll contribute to the design, analysis, prototyping, testing, and production support of electronic, mechanical, and electro-mechanical subsystems used on satellites and other space platforms.

This is a hands-on, learning-focused role where you'll gain experience across the full product lifecycle — from concept and design through to verification, qualification, and production handover. You'll be guided by experienced mentors and exposed to real project work that balances creativity, analytical rigour, and precision engineering.

The position offers a unique opportunity to build a foundation in aerospace engineering design, develop strong systems-thinking skills, and grow into a specialist or multidisciplinary engineer in one of the fastest-growing sectors in the world.

### KEY TASKS

- Take part in all stages of the product's lifecycle, from conceptualisation and business Development support to production and after-sale support
- Participate in the design, prototyping, and verification of components, assemblies, and systems used in satellite subsystems (mechanical, electronic, or mechatronic).
- Design, prototype, and develop electronics and/or mechanics and/or embedded firmware and/or FPGA-based solutions in line with project and client requirements.
- Support the preparation of design documentation, technical drawings, bills of materials, test plans, and qualification procedures.



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- Conduct simulations, analysis, and validation testing to verify that designs meet functional, environmental, and reliability requirements.
- Assist in the creation and improvement of jigs, calibration setups, and test equipment.
- Collaborate with engineers across mechanical, electronic, and systems disciplines in a team-oriented environment.
- Participate in technical reviews and contribute to the continuous improvement of design and verification processes.
- Maintain accurate configuration and version control of design data within the Product Data Management (PDM) system.
- Monitor and report on the status of projects' deliverables to the Team Lead/Project Manager, ensuring alignment with project timelines and priorities.
- Ensure adherence to the organisation's engineering standards, configuration control, and Business Management System processes.
- Support product integration, manufacturing, and testing activities, including troubleshooting and documentation.

## PREREQUISITES

### QUALIFICATIONS & EXPERIENCE

#### Minimum requirements:

- Bachelor's degree in Mechanical, Electronic, or Mechatronic Engineering (BEng or BSc Eng).
- Strong academic record with an interest in applied engineering and product design.
- Familiarity with engineering design and analysis tools (e.g., SolidWorks, Altium, MATLAB, or equivalent).
- Basic understanding of systems thinking and multidisciplinary design principles.
- Good problem-solving, analytical, and documentation skills.
- Collaborative mindset and eagerness to learn in a fast-paced, team-oriented environment.

#### What you'll gain:

- Real-world experience in space-qualified design principles, systems engineering, and product lifecycle management (PLM).
- Exposure to CAD, FEA, and/or circuit design and simulation tools used in the aerospace industry.
- Hands-on understanding of vibration, thermal, and environmental testing for high-reliability hardware.
- Mentorship from senior engineers in a collaborative environment that encourages technical curiosity and problem-solving.
- A pathway toward professional growth and career progression within a world-class engineering team.



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## Added advantage:

- Previous internship or project experience involving product design, manufacturing, or testing.
- Exposure to space, defence, or high-reliability engineering domains.

## COMPETENCIES & SKILLS

### Technical Skills:

- Proficiency in engineering design and analysis fundamentals.
- Basic knowledge of CAD, schematic capture, or simulation tools (e.g., SolidWorks, Altium, MATLAB).
- Understanding of verification and validation principles, including test planning and documentation.
- Familiarity with data analysis, root cause identification, and design improvement methods.
- Awareness of manufacturing and assembly considerations for electro-mechanical systems.

### Behavioural Competencies:

- High attention to detail and quality.
- Proactive, curious, and eager to learn.
- Detail orientated in all tasks and documentation.
- Analytical and structured problem-solving approach.
- Commitment to delivering reliable, high-quality results.
- Effective communication and teamwork across disciplines.
- Adaptability and ownership in a dynamic, project-driven environment.

## LANGUAGE

- English

## APPLICATION

**If you meet the requirements of this vacancy, please send your cv to:**

[cv@newspacesystems.com](mailto:cv@newspacesystems.com) OR contact us on +27 21 300 0160

**To learn more about NewSpace Systems, visit our website:**

[www.newspacesystems.com](http://www.newspacesystems.com)