



MODULARITYSPACE

Embedded Systems Engineer

Modularity Space

Modularity Space is changing the satellite industry by offering a suite of technologies and services that drastically cut cost, development time, and customer pains. Our spacecraft platforms are designed to be modular and reusable which allows for increased mission flexibility. In addition to our space system technologies, we offer turn-key solutions through a mission services package that allows satellite operators to focus on their mission. All we need is the payload required to complete the mission and we take care of the licensing, regulatory compliance, launch vehicle procurement, mission design, mission operations, and data processing and compiling.

Modularity Space is building and renting real estate in space. Our mission is to open space to virtually anyone by building satellites and providing affordable payload leasing/renting options for customers to use our satellites, so they don't have to build and operate their own. There are endless possibilities for what we can achieve by building affordable access to real estate in space, and that access is now a reality thanks to Modularity Space. We are looking for leaders who like to push themselves into the unknown and help build the infrastructure for the future of space.

Modularity Space is a fast-paced, aerospace start-up environment with a company culture focused on close team collaboration, rapid and low-cost development, and self-motivated individuals ready to take the initiative to innovate within the commercial aerospace industry. At Modularity Space, you will be given autonomy and ownership to solve critical problems facing the satellite industry. We encourage all types of qualified candidates to apply and tell us how great you are and why you should be considered for a position.

Scope and Responsibilities

Modularity Space is currently looking for an Embedded Systems Engineer to lead the development, integration, and verification of software on aerospace applications utilizing industry-standard software development and design assurance practices throughout the entire software development lifecycle. The Embedded Systems Engineer will report directly to the Chief Systems Engineer. This position will work as a member of the engineering team in the design, development, integration, and testing of embedded software applications pertaining to Modularity Space's core technologies. This position may require the ability to obtain a Secret security clearance.

Duties include, but are not limited to:

- Collaboration with clients and conceive programs based on client specifications and needs. Must review and maintain the system once developed.
- Designing and implementing software for embedded devices and systems, reviewing, and designing code, integrating and validating new product designs, and developing system software from design through debugging.
- Test systems regularly to eliminate potential issues.
- Provide system-level support working with functional teams (Mechanical, Software, Hardware, etc.).
- Collaborates with algorithm and software team to define and implement high-performance computing platforms.
- Works directly with System Architecture, Firmware, Mechanical, and Electrical Engineers to realize future generations of autonomous systems.
- Printed circuit board designer develops and designs circuit boards.
- May be required to research new products and test current products.
- Works with marketing teams, executive teams, and other related employees.



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Required Skills and Experience

- Bachelor's degree in Software Engineering, Embedded Systems Engineering, Computer Science, Electrical Engineering, or a related discipline.
- 4 years of experience in embedded systems development.
- Familiarity with embedded systems languages (C/C++, Rust, Verilog/VHDL, Python/MicroPython).
- Strong knowledge of hardware architecture such as ARM, MIPS, and x86.
- Familiarity with hardware protocols including USB, UART, I²C, and SPI.
- Experience with OS platforms such as Linux, Unix, and RTOS.
- Experience in embedded systems design with preemptive, multitasking real-time operating systems.
- Client-facing communication skills and an analytical mind.

Preferred Skills and Experience

- Master's degree in Software Engineering, Embedded Systems Engineering, Computer Science, Electrical Engineering, or a related discipline.
- 8 + years of experience with embedded systems.
- Knowledge of multiple front-end languages and libraries (e.g., HTML/CSS, JavaScript, XML, jQuery).
- Familiarity with databases (e.g., MySQL, MongoDB, web servers (e.g., Apache), and UI/UX design).
- Experience with the electrical design of an Electrical System including high-speed digital, power management, PCB layouts, and thermal management.
- Strong analytical and problem-solving skills as well as excellent written and oral communication.
- Self-motivated, willing to learn, detail-oriented, and able to work collaboratively with others.
- Ability to work in a collaborative engineering team environment across disciplines to implement solutions that are aligned with the goals of project areas.
- Knowledge of Model-Based Development practices.
- Ability to organize, prioritize, and achieve milestones and deliverables.
- Strong interpersonal, leadership, and mentoring skills.

Important Information

To conform to US Government space technology export regulations, applicants must be a US citizen, lawful permanent resident of the US, protected individual as defined by 8 USC 13244b(a)3), or eligible to obtain the required authorization from the US Department of State.

Modularity Space is an Equal Opportunity Employer, employment with Modularity Space is governed on the basis of merit, competence and qualifications and will not be influenced in any manner by race, color, religion, gender, national origin/ethnicity, veteran status, disability status, age, sexual orientation, gender identity, marital status, mental or physical disability or any other legally protected status.