

Senior Robotics Software Engineer

About the Company

Spacer Robotics is building autonomous, non-humanoid robotic systems to construct infrastructure in extreme environments - from lunar bases to next-gen terrestrial job sites. Our vision is to disrupt the \$16 trillion global construction industry by pioneering a new Deep Tech philosophy that blends robotics, AI, and systems engineering at the frontier.

About the Role

We're seeking a Senior Robotics Software Engineer to join the core team building Spacer's production-level robot. This is a highly hands-on, multidisciplinary role spanning the full autonomy stack - from raw sensor data through perception, localization, planning, and control. You'll be a technical self-starter who thrives with broad ownership, can make sound architectural decisions independently, and is energized by building real systems on physical hardware in unstructured environments. As an early hire, you'll shape our engineering culture and leave a lasting mark on how our robots think, see, and move.

Responsibilities

As a Senior Robotics Engineer, you will be expected to be versatile, making key contributions to a range of components in the Spacer software stack, including:

- **Robotics Software Stack:** Develop and maintain our ROS-based control systems for real-time robotic motion and coordination for our rebar-tying robot GRID
- **Embedded Systems:** Strong skills in C++ for embedded platforms, optimizing for reliability and low-latency
- **Sensor Integration:** Interface with cameras, lidar, IMUs, and encoders to build robust perception and feedback loops
- **Hardware-Software Integration:** Work closely with hardware engineers to debug, calibrate, and optimize the full system, including the construction tasks specific mechanisms
- **Motion Planning & Control:** Implement kinematics, trajectory planning, and control algorithms for smooth, natural movement
- **Production-Ready Systems:** Build the monitoring, diagnostics, and update infrastructure needed for manufacturing a high-volume product that is aimed at navigating the construction environment & outdoors temperatures and weather conditions.

Required:

- 4+ years of professional software engineering experience
- Strong C++ skills - you're comfortable with performance optimization, memory management, and debugging complex systems
- Python proficiency for scripting, testing, and rapid prototyping
- Experience with sensors, cameras, motors, or embedded systems in a professional context
- Excellent debugging skills - you know how to track down issues across hardware, firmware, and software
- High energy and enthusiasm for building physical products
- Based in or willing to relocate to the San Francisco Bay Area. Our team works in-person which is essential for hardware development

**Preferred:**

- ROS/ROS2 experience
- Shipped a robotics product or worked on production robotic systems or similar (cars, automation of equipment, other robotics applications, etc)
- Embedded development experience
- Computer vision, sensor fusion, or perception experience
- Background in controls, kinematics, or motion planning
- Experience working in high pace, early stage startups

Compensation

The US base salary range for this full-time position is \$140,000-\$230,000 annually, depending on job-related knowledge, skills, and experience. As one of our early engineering hires, your equity stake will be meaningful and reflect the impact you'll have building our technology from the ground up.