

## Robotic Sensing Systems Engineer

**Job ID:** 23-06

**Location:** Lebanon, New Hampshire

**Job Type:** Full-Time, Exempt

White River Technologies, Inc. is a small, high-tech company focused on research & development, testing, evaluation, and commercial support services for geophysical sensor and software technologies. Located in Lebanon, New Hampshire and Newton, Massachusetts, our scientists and engineers are developing new technologies that utilize magnetic, electromagnetic, radar, acoustic and electro-optical sensing for defense, environmental, and energy applications. We are recognized as a national leader in explosive hazards detection and classification technology development and have a reputation for building innovative solutions to complex problems.

We are seeking robotic sensing systems engineer to join our growing R&D team. The candidate will contribute technical expertise for the research, design, development, and implementation of next generation sensor-related technology hosted on autonomous and remotely operated systems such as unmanned aerial systems, unmanned undersea vehicles, and various robotic platforms for specialized tasks. Responsibilities include prototyping systems and helping to design, fabricate, and test hardware and embedded software systems that enable automation in geophysical sensor data acquisition and processing. Sensing hardware may include magnetic, electric, electromagnetic induction, ground penetrating radar, acoustic, and optical sensors. The successful candidate will work at the intersection of state-of-the-art sensor systems and autonomy platforms. System designs include highly integrated sensor and mobility platform solutions, autonomous survey control, artificial intelligence and machine/deep learning, and sensor system swarming and coordination. The candidate will apply knowledge of state-of-the-art electronics and embedded system design as well as processes. Platforms implementation may include man-portable, vehicle-towed, or tele-operated systems applied to terrestrial, airborne and marine surveys in support of DOD, DOE, and DOT characterization activities.

### Essential Duties and Responsibilities

- Design and fabrication of sensor and data acquisition systems on autonomous platforms
- Invent and prototype new hardware and embedded software designs
- Perform system design and integration and document work in reports and manuals
- Prepare work plans, reports, and proposals
- Travel to field sites to test and evaluate custom and commercial geophysical sensors
- Work as a member of a team and explore ways to improve our quality, better serve our clients, and innovate new solutions

### Education, Experience, and Skills

- Master's or Ph.D. degree in Electrical, Mechanical, or Controls Engineering or related electronics field.
- 1-10 years of experience with sensors, electronics, and/or autonomous systems
- Experience with drones, robotics, computer vision, machine learning,
- Familiarity with Pixhawk, Mission Planner/QGroundControl and/or MavLink
- Love of Python, C/C++ and MATLAB
- Experience with sensor data acquisition and/or survey systems including navigation and positioning systems (e.g., GNSS, RTS, SLAM)
- Demonstrated aptitude to learn new technologies, positive team-oriented attitude, and flexible and perseverant work ethic

*Please submit all resumes and correspondences to [jobs@whiterivertech.com](mailto:jobs@whiterivertech.com) and reference the Job ID in the subject line.*