

Autonomy Robotics Engineer



Full job description

RedZone Robotics provides wastewater asset management solutions, using clear and concise data to guide asset managers in critical infrastructure decisions. We understand the cost of infrastructure failures and shepherd leaders in the processes that protect their communities with the most efficient and economical solutions. RedZone Robotics believes that what lies underground directly affects the communities that live above.

Our process, from inspection to data delivery, is guided by the belief we all deserve a safe place to live, work, play, and grow old.

If you are interested in a friendly, cooperative, and exciting corporate environment where you will be continually challenged and opportunities abound, RedZone Robotics is the place for you!

RedZone Robotics is seeking an Autonomy Robotics Engineer for an exciting new program in wastewater system assessment. We are looking for a talented engineer who wants to make a significant impact in developing and deploying bleeding-edge assessment technology.

As an Autonomy Robotics Engineer, you will use technical automation knowledge combined with application/software development skills to develop high-quality automation software to define, build, and execute strategic system development programs focused on building robots and payloads aligned with the company's vision of the future.

The successful candidate will evidence a passion for delivering adaptive and creative solutions to industry-specific challenges by staying up to date with best practices and emerging trends of machine systems or automation technologies. This individual will thrive in an environment that requires strong problem-solving skills and independent self-direction, coupled with an aptitude for team collaboration and open communication. The ideal candidate will be able to advocate for system improvements to company leadership and work closely with the Engineering teams to address issues before they reach our valued customers. They will also have experience in a fast-paced and innovative environment where needs and requirements can change rapidly.

Duties and Responsibilities include:

- Develop, integrate and/or troubleshoot autonomy software systems used for autonomous products
- Translate complex program or subsystem requirements into actionable development efforts
- Evaluate internal and external automation and motion algorithms to decide which are most appropriate and implement these algorithms with optimized code
- Perform autonomy design work, subsystem testing or system integration
- Work with component hardware team members to select and develop interfaces to autonomy hardware (sensors)
- Perform new application development and modifications to existing code
- Work well in cross-functional teams as well as independently
- Interact and communicate with non-technical users
- Make recommendations for potential hardware or software improvement
- Perform other duties as assigned

Skills and Competencies:

- Deep understanding of the principles of GNSS, IMU, Lidar, and Cameras
- Experience in sensor development and packaging for industrial mobile platforms
- Understanding of common communication protocols such as UDP, TCP/IP, DDS, etc.
- Experience with concepts such as Test-Driven Development and Clean Architecture are a plus



- Experience mapping out requirements
- Computer Vision, Machine Learning, C/C++, Python, Robotic Operating Systems
- Strong communication skills (written and verbal), ability to deliver messages concisely and effectively
- Strong propensity to listen and ask the right questions of customers and the organization
- Being aware of others' reactions and understanding why they react as they do
- Demonstrate strong proficiency in emotional intelligence – being able to maintain composure and communicate with tact in challenging situations
- Ability to build and maintain interpersonal relationships, and influence at all levels of an organization
- Ability to develop constructive and cooperative working relationships with others and maintain them over time
- Ability to proactively reach outside the primary area of responsibility to solve conflicts or issues
- Capability to partner with company's leaders to understand & drive overall cross-functional and business needs
- Experience working on an Agile development team is a plus
- Learn quickly, adapt easily to changing technology/circumstances, and apply change management skills appropriately
- Use creative planning and resource management skills to meet complex schedules, skills mix, cost, and personnel issues
- Support high peak resource demands proactively without compromising quality
- The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem
- Analyzing information and evaluating results to choose the best solution and solve problems
- Identifying the underlying principles, reasons, or facts of information by breaking down information or data into separate parts
- Ability to manage multiple tasks and prioritize work accordingly
- Self-motivated and pro-active
- Demonstrated creative and critical thinking capabilities

Education and Qualifications:

- BS or MS in Robotics, Electrical, Software, or related engineering degree
- 5+ years experience
- Computer Vision, Machine Learning, C/C++, Python, Robotic Operating Systems

EQUAL EMPLOYMENT OPPORTUNITY

It is the policy of RedZone Robotics, Inc. to provide equal employment and advancement opportunities to all individuals and to administer its personnel practices based on merit, qualifications, and abilities. RedZone will maintain an environment free of discrimination or harassment on the basis of actual or perceived race, color, national origin, religion, sex, sexual and reproductive health decision-making, age, actual or perceived physical or mental disability, genetic information, marital status, sexual orientation, gender (including gender identity or expression and/or the status of being transgender), military or veteran status, citizenship status, status as a victim of domestic violence, stalking, or sex offense, caregiver status, arrest or conviction record, credit history, unemployment status, or any other unlawful criterion or circumstance. RedZone prohibits and will not tolerate any such discrimination harassment, or retaliation in response to good faith reports or the provision of information about such discrimination or harassment.

Job Type: Full-time

Benefits:

- 401(k)
- 401(k) matching
- Dental Insurance
- Employee assistance program
- Flexible schedule



- **Health insurance**
- **Health savings account**
- **Life insurance**
- **Paid time off**
- **Professional development assistance**
- **Referral program**
- **Vision insurance**

Schedule:

- **8 hour shift**

Work Location: In person

