

# Research and Development Engineer

## Brightwater Tools, Inc.

Position Title: R&D (Research & Development) Electrical Engineer

Term: Full time, 32-40 hours/week

Start Date: ASAP

Summary: *The focus of this position is to contribute to the engineering development of new products, and increasing the technology readiness levels of new products towards marketability.*

**Brightwater Tools** is a National Science Foundation-funded startup developing novel building-scale systems that recover resources from wastewater. At Brightwater Tools, we're on a mission to revolutionize the wastewater treatment industry through innovative hardware solutions. Our cutting-edge technology addresses critical environmental challenges while improving efficiency and sustainability in water management. As we continue to push the boundaries of innovation, we're seeking talented Engineers to join our passionate team and drive the continued development of our next-generation hardware products.

The tasks for this position with Brightwater Tools include, but are not limited to:

- **Product Development:** Designing, fabricating, and testing prototype nutrient recovery systems.
- **Testing:** Validate designs, identify issues, and refine solutions. Manufacturing Brightwater nutrient recovery tools and remotely supporting field operations.
- **Collaboration:** Work with mechanical engineers, software developers, and other team members to integrate electrical systems with overall product design.
- **Documentation:** Producing documentation in support of product development, including technical drawings, schematics, circuit diagrams, manuals, and parts lists.
- **Support:** Providing ongoing maintenance and support for hardware/software systems in our nutrient recovery tools.
- **Improvement:** Assessing existing products to identify areas for improvement in energy efficiency, performance, and reliability.
- **Innovation:** Stay current with industry trends and emerging technologies to bring innovative solutions to our equipment.

This position reports to the CEO, CTO, and Senior R&D Engineer.

### QUALIFICATIONS:

- Bachelor's degree in Electrical Engineering or the physical sciences
- Experience in one or more of the following areas: Electronics/Electrical Engineering, Mechanical Engineering, Refrigeration/Thermal Engineering, Fluid Dynamics, Wastewater Engineering, Circuit Design, Certifications (UL, CE, etc), Automation, Controls, PCB Design
- Proficient in Google Suite
- Excellent communication skills

- Strong understanding of electrical principles, components, and systems; experience with power electronics, control systems, and embedded systems is advantageous. Skilled in programming languages (e.g. C++, python, R, javascript) are highly desirable.
- Other useful skills could include: practical experience troubleshooting electronic circuits, wiring harness design and fabrication, industrial control panel design and fabrication, programming microcontrollers, integrating modular electronic components, knowledge of a development board ecosystem (esp32, stm32, arduino, etc), experience with IOT devices is a plus.

**PHYSICAL REQUIREMENTS:**

Our facility is located in Brattleboro, VT. On-site presence is required. Must be able to lift up to 50 pounds.

Travel may be required.

To apply, email a resume and cover letter to [hr@brightwatertools.com](mailto:hr@brightwatertools.com).

Compensation: \$30 per hour, depending on experience. Benefits include a SIMPLE 3% IRA match, Paid Time Off and Paid Holidays, and Workers Comp. Vehicle mileage reimbursement for travel if needed.

Brightwater Tools, Inc. is an equal opportunity employer. At Brightwater we recognize that diversity brings different perspectives and skills, making stronger teams that are more creative and rewarding. As such, we encourage people from all backgrounds to apply.