

Job Title: Embedded Firmware Developer

Why join us?

Greyter Water Systems offers industry-proven water reuse management solutions that create water efficient buildings and homes, addresses water scarcity, and reduces water costs. We produce the award-winning Greyter HOME water recycling system (Best Green Building Product Winner – NAHB-IBS 2017). By capturing and treating grey water from showers and bathtubs, the Greyter HOME is the single greatest water savings appliance for the home.

Greyter Water Systems is seeking a highly motivated and skilled Firmware Developer and Software Tester to drive the development of our award-winning Greyter HOME water recycling solution.

How will you contribute to the team:

- Collaborate with the design team to develop and test embedded firmware for our innovative water recycling solution.
- Define, develop, and execute board-level and system-level test solutions encompassing the design of test hardware and software, the verification and acceptance of test solutions and the creation of test documentation (test plans, procedures, fixtures, debug instructions etc.)
- Develop, test and debug component level and system level algorithms based on system design concepts.
- Support the development of an online backend system and the required communication protocols.
- Challenge the current methodology of system operation to bring new innovative ideas.

Qualifications:

- Degree in Computer Science, or Electrical and Computer Engineering or equivalent with a minimum of 3-5 years of working experience.
- Proficient in C and/or assembler programming language, with experience in Microcontroller, PIC24 Programming, and Espressif ESP32 Development.
- Familiarity with IoT, USB, WiFi communication protocols, and interfacing with peripherals using protocols such as SPI, I2C, UART.
- Experience with Python for testing, unit testing frameworks, automated testing tools, and debugging tools for C/C++.
- Understanding of low-level programming concepts, assembly language, and Real-Time Operating Systems (RTOS).
- Experience with basic electronics testing, troubleshooting equipment, and working with safety and regulator bodies such as CSA and UL.
- Proficiency with Source Control Software (Git), project management software such as Jira, and ability to work independently to handle complex issues with clear and concise communication.
- Strong documentation skills for data analysis, tracking of issues, and their subsequent resolution.
- Experience with static and dynamic code analysis is a bonus.

Skills:

- Experience with modular and scalable firmware development
- Experience with Arduino for ESP32 and ESP-IDF

- Familiar with Visual Studio Code and PlatformIO development Environment
- Experience with debugging tools
- Proficient in C/C++ development
- Proficient in Web/REST API, JSON, web security and WiFi
- Familiar with UART protocol
- Experience with reading schematics, debugging electronic boards, and using lab equipment such as an oscilloscope, multimeter, soldering iron, etc.
- Familiar with Test Driven Development (TDD)
- Familiar with Design Patterns

Job Type: Full-time, Permanent

Salary: \$80 000 to \$90 000

What we offer:

- Extended health and dental care for you and your eligible dependents
- Life insurance
- Disability insurance
- 3 weeks vacation

Schedule:

- Monday to Friday