Senior Embedded Engineer

About Cala Systems, Inc.
Cala designs and builds intelligent heat pump water heaters that redefine the water heating industry. Combining advanced sensors, hardware, and predictive controls, Cala's system learns each home's unique hot water needs to improve hot water comfort, maximize savings, minimize carbon emissions, and provide first-of-a-kind features such as integrating with home solar and battery systems. Built by energy and hardware industry veterans and backed by leading climate and water investors, Cala began deliveries in Q3 2025 and is currently scaling production.

The Role, At-a-Glance
Cala Systems is seeking a Senior Embedded Software Engineer to lead the embedded work on our water heater. This role involves a hands-on role in the day-to-day software development of Cala's primary product. We are seeking an individual who can architect, design and implement quality embedded firmware code, including but not limited to controls. The individual we are seeking should be creative with an aptitude to learn new things and an excellent team player. This is a hybrid position that will be fully onsite for the first few months and can transition to 3 days in office. It's based in our Wilmington, MA office.

What Will I Do?
- Design and develop production-quality code in the control algorithm and other embedded systems
- Leverage software development best practices to maintain good codebase documentation while also defining requirements, test plans, and specs
- Complete code reviews, both as reviewer and as reviewee
- Brainstorm improvements to architecture and development process
- Work with cross functional team members to implement and test your code on prototypes in both the lab and field
- Integrate third-party software where available

What Qualifications Do I Need?
You have a proven track record in software development, including:
- BS in Computer Science or Engineering, or a similar technical field, and/or at least 4-6 years of equivalent experience in production-grade software design and development. Must be comfortable with the tools of the trade (SCM, bug tracking, unit testing, collaborative dev tools, etc.)
- Experience working with FreeRTOS and ESP32
- Versatile embedded development skills are required (bare metal code and libraries; C language skills; device drivers, including basics such as GPIO, SPI, I2C, serial/UART)
- Must be able to debug hardware/software interfaces. Knowledge of basic electronics and comfort with schematics and basic tools (e.g. scopes, multimeters, logic analyzers) is essential
- Familiarity with standard OS features (threading, memory and storage, I/O, etc.) is strongly desired
- High comfort level within a fast-paced environment - you'll be helping to build from the ground up so it's important to be flexible and capable of adapting to moving targets
- Self-starting attitude - while Cala is a highly collaborative team environment, we're looking for candidates who can take take a general direction then run with it and make it their own
- Extra credit if you have experience in any of the following: consumer products; manufacturing, IOT/connected products; control theory, MATLAB, Simulink; thermal sciences; heat pumps

Want to Learn More?
Please email careers@calasystems.com with your resume, portfolio, and brief thoughts on:
- Why are you interested in joining a climate tech company/how does it fit with your goals?
- When the time comes for reference calls, what will your colleagues say about you?
- What's your proudest professional achievement? Why?