



Development Engineer

About Conduit Tech

At [Conduit Tech](#), we are using sensors and data to fight one of the biggest sources of carbon emissions - home HVAC use. We believe that by proactively monitoring HVAC equipment, we can empower HVAC Pros to create unnecessary truck rolls and costs, and drive energy efficiency and electrification upgrades. We are passionate and optimistic builders who are iterating quickly to create products that solve the urgent pain points of our primary users.

Job Overview

As a Development Engineer, you would join our cross-functional team responsible for driving fast cycles of designing and prototyping our HVAC-monitoring IoT devices. You would be responsible for contributing to all the stages of this early prototyping phase - joining in for customer discovery and usage research, developing cost-effective prototypes that are focused on testing our key user hypotheses, and iterating as we learn more in the field. We are looking for a teammate who takes ownership for their work and is passionate about making a difference in our organization and the climate. We are a small but mighty team, and hope you consider joining us!

If you're interested in learning more, please send a note to shelby@getconduit.com.

Role and Responsibilities

1. Work primarily onsite, in the Greater Boston area
2. Lead the rapid prototyping iterations for our IoT platform from concept to design to start of production, thinking through enclosure to sensors, to firmware
3. Collaborate closely with our software function to iterate on the development of our software prototypes (e.g. connecting prototype iterations to our telemetry and telecommand, assisting in device provisioning workflows, etc.)
4. Drive end to end delivery of prototypes that can be translated into embedded firmware for sensor-based systems
5. Design code and select hardware for testing data processing and transmission of IoT sensors
6. Assist in executing and trouble-shooting pilot deployment of sensor systems.
7. Develop reliable process for retrieving data from sensors and relaying it to cloud database and industrial controllers through wireless and wired means
8. organize or take part in design reviews including but not limited to mechanical designs.

What Success Looks Like in 1 Year:

1. You've led us through 6+ scrappy product iterations that help answer our main commercial and technical questions
2. We've deployed prototypes in controlled environments (mostly local HVAC school workshops) and studied the prototype performance in picking up forced HVAC equipment faults
3. We have deployed 20+ prototypes at real homes in the field and collected feedback from homeowners, HVAC Pros, and property owners - continuously improving our product design and user experience



4. You've communicated clear product decisions, dependencies, obstacles and needs
5. discovered what type and number of IoT Sensors are needed to diagnose most major HVAC faults, and we have a plan to collect data needed to draw predictive insights

Qualifications:

1. 2+ experience building and launching hardware projects or products
2. Strong ownership mindset and entrepreneurial spirit
3. Adaptable, creative and excited to tackle new challenges
4. Proficiency in Python, Raspberry Pi, C++, single board computer/microcontroller programming
5. Capable of rapid prototyping, soldering, and PCB design
6. Worked with or capable of quickly picking up IoT communication and wireless data transmission protocols (ex. MQTT, cellular, LoRa, WiFi, RS485, TCP/IP)
7. Understanding of network and device security