



Embedded Firmware/Electrical Engineer

Are you looking for an opportunity to be on the forefront of the IoT sensor revolution? Do your coworkers look to you to solve complex challenges or issues? OneEvent Technologies develops software systems that monitor building and home environments, generating life- and property-saving insights. OneEvent is the creator of OnePrevent, a preventive monitoring system with the predictive analytics engine embedded inside a series of sensing devices to showcase the potential of the modern safety solution in protecting buildings, assets and occupants.

Located in Mount Horeb, Wis., OneEvent is one of the premier companies in the area applying new analytics to smoke, carbon monoxide, humidity, temperature and water alarms, along with occupant sensors, to provide building owners with the most important information needed to keep their buildings safer and more comfortable. Our patented software provides continuous multisensor monitoring capabilities and transmits timely information to property owners, preventing or reducing property damage, injury and loss of life during fires and other catastrophic events.

Our ideal candidate is someone who has a passion for thinking outside of the box to develop the next generation of technology. We're seeking someone who is obsessed with looking for ways to apply sensor technology to save lives and property.

Required education and experience:

- B.S. in Electrical and/or Computer Engineering or equivalent
- 3+ years related work experience
- Experience in a fast-paced, small R&D organization is desired

Your day-to-day responsibilities:

- Design and develop real-time embedded firmware in C and assembly
- Develop low-power, battery-operated, wireless sensors and sensor networks
- Create test documentation and perform firmware verification testing
- Create requirements documents and technical specifications
- Support and maintain existing products and embedded firmware
- Collaborate with engineers, marketing, vendors and customers to determine project requirements and priorities
- Provide technical support to regulatory and compliance agencies
- Provide technical support to marketing, sales and support staff
- Manage workload on simultaneous projects with fast design cycles
- Evaluate and recommend next-generation platforms and equipment
- Participate in the architecture of new sensors, networks and systems

- Define and create installation and support tools for dealers, installers and support staff
- Work with technicians and system testers to validate product functionality
- Prepare third-party requirement and production documentation
- Interface with third-party design and manufacturing houses
- Evaluate competitive products
- Stay current with new technologies and the marketplace

What we require:

- Can-do, positive attitude and wiliness to overcome technical challenges
- Innovative and creative thinker
- Organized, detail-oriented individual with the ability to manage multiple priorities
- Self-starter who's able to work independently
- Experience with 8/16/32-bit microcontrollers and microprocessors
- Embedded firmware development experience using C and assembly
- Experience with embedded IDEs and debug tools
- Experience working with low-power and battery-operated devices
- Experience developing low-level sensor interface and sampling firmware
- Experience in various interface topologies such as I2C, SPI, USB, RS232, Ethernet
- Experience with board bring-up, debug and testing
- Experience with revision control systems and practices
- Comfortable using lab test equipment for developing/debugging firmware and hardware
- Excellent problem-solving and debugging skills
- Proven capability of writing requirement specifications
- Proven capability of writing and executing test protocols and reports
- Strong verbal and written communication skills
- Ability to excel in a small, dynamic team environment
- Experience with low-power, wireless protocols a plus
- Experience working with UL, FCC and IEC regulatory agencies a plus
- Experience working with third-party contractors and manufacturers a plus
- Occasion travel may be required

Programming languages and tools you should know or desire to learn more about:

- C, C++, PIC assembly, Python
- FreeRTOS or other real-time operating systems
- Linux application development
- Git version control
- PIC and ARM processors

The details:

You'll work with a skilled team of engineers, data scientists, and software developers who are defining the future of IoT by protecting businesses and homes with smart sensors. Your interest in sensor development and the management of that data will make you a highly valuable candidate.

OneEvent is in the small Midwest town of Mount Horeb, Wis., and just 15 minutes from Madison's west side. We hope you have a passion for visualizing the potential of what sensors and the IoT can accomplish in the world today. We are at the cutting edge of these fields and are using these techniques to show and predict things in building and structures that have never been done before.