Job Description

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Identification

Job Title: **Embedded Software Developer**
Reference: ENG-006
Date: November 6th, 2018

About EERS

Founded in 2014, EERS Inc. is an award-winning hearing protection & communication company.

EERS's team includes audio engineers and audiologists, whom together make use of the advanced proprietary algorithms developed in partnership with the auditory research department at ETS University, one of Canada's largest engineering school. EERS has developed an industrial Hearables IoT (Internet of Things) device, named SonX, that addresses 3 major factors: industrial hearing protection, high noise communication, and monitoring on an affordable subscription model.

Job Description

The Embedded Software Developer will document user requirements, implement features and debug existing software and hardware issues related to EERS SonX devices. The position will involve quickly understanding existing system requirements, architecture, design and code. The candidate will be expected to perform a wide variety of tasks: from high-level architectural analyses to hardware debugging.

Duties and Responsibilities

- Create and validate product requirements and design specifications.
- Design and develop embedded software for microcontroller-based products.
- Define and implement high-performance software by leveraging a strong understanding of embedded hardware design.
- Analyze and provide feedback on peer designs.
- Address design and implementation issues, and maintain existing products.
- Collaborate with academic partners to implement and optimize new audio DSP algorithms.
- Evaluate, test and review designs to determine if programs will perform according to requirements and specifications.
- Review product documentation for accuracy, including documentation intended for customer use.
- Maintain accurate records throughout the development process in order to comply with company and government standards and/or regulations.

Qualifications

Minimum Requirements

Education & Experience:

- Bachelor's degree in Electrical Engineering or other relevant discipline, or equivalent combination of education and experience.
- 3 years of relevant professional experience in embedded software development.

Knowledge, Skills & Abilities:

- Extensive knowledge of the C language, including the tools used to edit, compile and debug code in an embedded environment.
- Intermediate knowledge of the Python language.
- Experience with real-time signal processing and hardware.
- Linux-based development (gcc, make, bash, …).
- Linux development on embedded platforms.
- Strong writing and documentation skills.
- Strong communication skills with the ability to work with all levels of the organization.
- Ability to work both individually and as part of a team.
- Excellent time management skills with the ability to contribute to multiple concurrent projects.

Preferred

- Knowledge, Skills & Abilities:
- Experience with ARM micro-controllers, including its vector math library.
- Electronic circuit debugging skills.
- Real-time digital signal processing.
- Linux server administration.
- Basic GUI development.
- Software development experience in the context of connected devices or wearable technologies.
- Git source control.