JOB TITLE: Electrical Engineer

MAIN PURPOSE OF JOB

The Electrical Engineer has the responsibility for the architecting, implementing, and testing of hardware & firmware for embedded processors as applied to flame scanners for industrial burners & other safety critical product. He or she will apply knowledge of embedded software, communications protocols, basic electronic circuits, signal processing, and wireless systems to design system control firmware for the flame scanner for large utility scale burners. The Electrical Engineer supports the cross-functional project team, working with engineering, product manufacturing, quality engineering, and product management.

MAIN JOB DUTIES/RESPONSIBILITIES

- Strong understanding of new product development technologies, industry standards FM, UL, IEC 508/511
- Strong knowledge of gated product development process
- Design, develop and prototype new products in accordance with company Product Development Process (PDP) requirements
- Evaluate the feasibility of selected concepts to meet functional, safety and customer needs through engineering testing and analysis
- Develop timelines and cost estimates for development tasks and appraise management of performance against plan
- Generate design history documents in compliance with ISO, IEC 508/511and company PDP requirements
- Evaluate, document, and implement potential design and process changes to improve product performance, manufacturability, safety or cost
- Programming software for the product & its user interfaces
- Development and refinement of prototypes to confirm requirements
- Authoring of documentation needed by users and implementation partners etc.
- Testing, including defining/supporting certification testing
- Collaborate with team members to design product testers
- Assess reliability, safety, performance and risk of new designs & methodologies
- Transfer of designs to manufacturing through liaison with manufacturing engineering and external suppliers
- Other duties as assigned

QUALIFICATIONS

- Bachelor's degree in Electrical Engineering

Demonstrated ability and experience in:

- Knowledge of signal processing techniques, redundancy & supervisory control concepts
- Proficient at firmware design and development for embedded systems using IARS workbench.
- Experience with hardware bring-up, integration of software and hardware using debug tools to isolate low level design issues.
- Experience with Bluetooth technology, software development and protocol implementation.
- Experience with SIL certification process for product
- Travel to and support prototype installations at customer sites during beta testing.
- 8+ years of embedded systems firmware design and development from concept through product production.

Specific Experiences

- Proven experience in architecting, designing, and implementing complex hardware / firmware projects
- Embedded microcontroller firmware design and development using IAR, or other appropriate tools foe ARM Cortex-M3 or similar microcontrollers.
- Experience with opto-electronics sensors highly desirables
- Good written and oral team communication skills
- Ability to travel occasionally to customer sites within USA & company's manufacturing facility in Monterrey, Mexico.