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Job Description: Embedded SW Engineer

Summary

Under the direct supervision of Director of Engineering or Sr. Software Engineer.

Essential Functions: Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Responsibilities:
- Develop, modify and maintain hard real time embedded system software development for Ground Based Radar applications using software engineering best practices and standards.
- Participate in the full lifecycle of software development to include embedded C/C++ coding to real-time coding standards, unit testing and software integration testing.
- Work with Micro-Controllers used in Radar subsystems.
- Assist Depot and Manufacturing engineers with test automation.
- Opportunity exists to expand knowledge base in the areas of hands-on Radar technology, RF, Analog and Digital Circuits and Testing.

Process Tasks:
- Design, develop, document, test and debug applications software and systems that contain logical and mathematical solutions for Radars.
- Conduct multidisciplinary research and collaborate with equipment designers and/or hardware engineers in the planning, design, development, and utilization of Radar data processing systems for product and commercial software.
- Determine computer user need; analyze system capabilities to resolve problems on program intent, output requirements, input data acquisition, programming techniques and controls; ensures software standards are met.

Learning Tasks:
Become more knowledgeable in hardware/software interfaces, programming of embedded processor utilizing a Real Time Operating System (RTOS), real-time and post processing data algorithms, and communication interfaces / protocols.

Supervision Received
This position is a direct report to the Director of Engineering or Sr. Software Engineer.

Competency or position requirements
- Familiarity with serial communication protocols (SPI, I2C, RS232, USB)
- Familiarity with Linux and using the Linux terminal
- Ability to use APIs where appropriate
- Strong understanding of assembly language and low-level components
- Strong understanding of digital and analog signals and conversion between them
- Experience using oscilloscopes, benchtop power supplies, jumper wires, breadboards, etc.
- Read and follow software requirements documentation.
- Read and follow electro-mechanical schematics.
- Electronics systems knowledge.
- Mechanical systems knowledge.

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- RF systems knowledge.
- Circuit board troubleshooting and rework.
- Testing and evaluation.

Education and Experience
- Bachelor's degree in Computer Science preferred.
- 2 years of related technical experience.
- Must be familiar with Microsoft Office products for report creation and updating.

Physical Factors
The job consists of sitting and standing throughout the day.

Working Conditions
The department for this position is indoors in an office atmosphere with an open area for laboratory equipment. Some outdoor work may be required on outdoor equipment such as vans and antennas.

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job. Duties, responsibilities and activities may change at any time with or without notice.

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