

**GARRETT ELECTRONICS, INC. dba GARRETT METAL DETECTORS
POSITION DESCRIPTION**

DEPT NO. 300	DEPARTMENT: ENGINEERING	POSITION TITLE: Embedded Firmware Developer FLSA CLASS: EXEMPT
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POSITION SUMMARY:

Participate in the design and development of firmware used in electronic instrumentation products. Receives direction from senior engineering staff. Develops and documents software and firmware in a structured programming environment. Designs and executes software and hardware tests to validate software designs.

POSITION COMPETENCIES:

Competencies associated with each position are a combination of company-wide and department specific standards. Competencies are evaluated initially during each employee's Introductory Period using the Competency Validation Checklist. Thereafter, competencies are assessed on an on-going basis and formally documented using the Annual Performance Evaluation Form.

• ***COMPANY WIDE CORE COMPETENCIES:***

- Environment of Care
- Leadership Initiative
- Customer Service
- Ethics and Code of Conduct
- Employee Health and Safety
- Human Resources
- Performance Improvement
- Information and Management

• ***DEPARTMENT SPECIFIC COMPETENCIES:***

- Leadership
- Performance Improvement
- Ethics
- Education
- Customer Service
- Management of Fiscal Resources
- Information Management

ORGANIZATIONAL RANKING:

Reports To: Vice President of Engineering

JOB FUNCTIONS:

Every effort has been made to make this job description as complete as possible. However, it in no way states or implies that these are the only duties the incumbent will be required to perform. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or is a logical assignment to the position.

POSITION RESPONSIBILITIES:

- Receives direction for embedded software development from senior engineering staff.
- Executes the design, coding, testing and documentation of firmware according to departmental needs.
- Performs design evaluation and code review as directed.
- Reviews software design to insure error free implementation.
- Maintains an engineering notebook to be used in support of patent application.
- Read, analyze and interpret technical documents to define problems and establish facts.
- Comply with all safety policies, practices and procedures. Report all unsafe activities to supervisor and/or Human Resources.
- Participate in proactive team efforts to achieve departmental and company goals.
- Provide leadership to others through example and sharing of knowledge/skill.
- Perform other duties as assigned.

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MEASURES OF EFFECTIVENESS:

- As observed by manager and others.
- Review of documentation.
- Service is delivered in a safe, competent, and efficient manner as determined by outcomes, quality monitors, and other internal and external processes.
- Conduct and interpersonal relationships contribute positively to the delivery of quality product and services, and to orderly operation of the department and the facility.
- Skills are maintained and enhanced through participation in planning activities, and attendance at in-service and continuing education programs.
- Quality, performance, suitability, and timelines of design.

POSITION REQUIREMENTS/QUALIFICATIONS:

Education: Bachelor of Science in Electrical Engineering or Computer Science

Licensure/certification/registration:

Experience: 3 years experience in embedded programming in a structured programming environment

Special Skills & Qualifications: Software design, development of programs in assembly and higher level languages in a structured environment, software testing and hardware troubleshooting, thorough documentation of designs

MENTAL AND EMOTIONAL REQUIREMENTS:

Have the ability to work independently and in a team environment. Learn independently new software tools and techniques. Effectively present information to management and departmental groups. Define problems and interpret an extensive variety of technical instructions in mathematical or diagram form and deal several situations.

ENVIRONMENTAL CONDITIONS:

Work in a well-lighted, heated and/or air-conditioned indoor office setting with adequate ventilation and a quiet work area.

PHYSICAL DEMANDS:

Demands of physical activity are light to perform non-strenuous daily activities of a technical nature. It is necessary to work from a sitting or standing position, have manual dexterity sufficient to reach/handle items, work with fingers and perceive objects and materials. One must be able to stand under 33%, walk under 33%, sit over 66%, and usage of hands over 66%, reach with hand/arms over 33 %, and have the ability to carry or lift up to 50 pounds under 33%. Vision requirements at times will include close ranges (20 inches or less), distance (20 feet or more), and ability to adjust focus (bring an object into sharp focus). Travel occasionally overnight (up to 10%) by land and/or air.

CONTACTS / INTERACTS WITH:

Employees, Customers, Visitors, Management Staff, Production Staff

POSITION DESCRIPTION REVIEW/REVISION DATE:

Date: 4 February 2010

I have reviewed these job requirements and attest that I can perform all essential functions of this position with or without reasonable accommodation.

Employee Signature: _____ Date: _____