

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

<b>DEPT NO.</b> 300	<b>DEPARTMENT:</b> ENGINEERING	<b>POSITION TITLE:</b> Electronic Design Engineer <b>FLSA CLASS:</b> EXEMPT
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***POSITION SUMMARY:***

Participates in the design, development and test of analog and digital circuits and systems used in electronic instrumentation products. Works with senior engineering staff to identify company needs for product development. Performs necessary research and development to support product needs. Assists with component specifications, documentation of designs and development of production testing protocols and equipment. Provide support to manufacturing through the product lifecycle.

***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
- Customer Service
- Education

***ORGANIZATIONAL RANKING:***

**Reports To:** Associate Director of Research and Development.

***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:***

- Receive direction from senior engineering staff.
- Maintain a comprehensive knowledge of current technology used in the industry.
- Performs basic research necessary to expand the technology base of the company.
- Participates in the conception of products and product improvements consistent with the needs of the company.
- Tests designs and evaluates against a benchmark of competitive products to assure the product superiority.
- Uses P-spice and other computer modeling tools in the analysis of circuit design.
- Reviews and recommends topics and text in instruction manuals and promotional materials.
- Maintains an engineering notebook to be used in support of patent application.
- Read, analyze, and interpret complex documents.
- Comply with all safety policies, practices and procedures. Report all unsafe activities to supervisor and/or Human Resource.
- Participate in proactive team efforts to achieve departmental and company goals.
- Provide leadership to others through example and sharing of knowledge/skill.
- Prioritize, organize, and delegate assignments.

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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 time levels of designs.

**POSITION REQUIREMENTS/QUALIFICATIONS:**

**Education:** Bachelor of Science in Electrical or Electronic Engineering  
**Licensure/certification/registration:**  
**Experience:** 4 years experience in an electronic design  
**Special Skills & Qualifications:** Capable of innovative electronic circuit design, proficient in both analog and digital systems, ability to use test equipment to troubleshoot circuits and systems, ability to organize and execute comprehensive testing programs, ability to communicate clearly and accurately through written instructions, ability to produce accurate engineering documentation.

**MENTAL AND EMOTIONAL REQUIREMENTS:**

Have the ability to work independently and in a team environment. Effectively present information to management and departmental groups. Interpret a variety of technical instructions in mathematical or diagram form. Solve problems and deal with a variety of situations.

**ENVIRONMENTAL CONDITIONS:**

Work in a well-lighted, heated and/or air-conditioned indoor office setting with adequate ventilation and in 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: \_\_\_\_\_