

## Position Purpose

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The Engineering Development Technician level 3 reports to the Development Lab Leader or Engineering Team Leader function and is responsible for the performance of routine functions which require the application of standard techniques and procedures to solve moderately complex technical problems. This level also supports product and tool documentation, prototype development and testing of new and existing products, and provides technical support to Development Engineering personnel. This level will begin to solve more complex technical problems and will apply initiative and resourcefulness in planning non routine assignments of substantial variety and complexity. This position requires a low level of supervision; work may be reviewed by more senior Technicians or Engineering staff members.

## Essential Functions

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- Working knowledge of RF/EMC lab equipment such as EMI spectrum analyzers, signal generators, amplifiers, and antennas (knowledge should extend beyond use of prewritten test software)
- Skilled in use of basic electrical test equipment such as oscilloscopes, meters, and programmable power supplies
- Assembles new/and or modified electrical components, equipment and tools or subsystems from supplied documentation.
- Sets up and performs testing on new, modified and production product designs under operational conditions per written and verbal instructions from the project/product engineer with minimal assistance or supervision.
- Can troubleshoot and rework products at a system or component level and can help diagnose or determine possible solutions. Participates in installation of equipment in complex test setups which may include mechanical or electrical controls, cabling, tubing, power source, instrumentation, and development of software programs to monitor test results.
- Ensures laboratory equipment is maintained and calibrated appropriately and meets specification and functional limits.
- Competent in computer use for data acquisition and formatting
- Records and analyzes test results (numerical and graphical data); reviews test results for compliance to test objectives and documents test progress, proposes solutions and drives corrective actions.
- Instructs others in the safe and proper use of applicable lab and/or manufacturing hardware and tools.
- Defines and creates documentation for products and tools.
- May support manufacturing personnel on product related issues.
- Implements the transition of NPI products to production including production assembly and test process development.
- Devises solutions to moderately complex problems of mechanical components.
- Contributes to the evolution of product design and test planning. Supports the Engineering Change Process.
- Identifies and corrects most malfunctions in Test Lab and/or test equipment.
- Knowledge of commercial test standards such as RTCA/DO-160 and MIL-STD-461.
- Applies test plans and has basic knowledge of main IEC, CE and UL test standards. Plans and executes basic functional and environmental tests; may support EMC Tests.
- Performs analysis and testing on existing systems to determine process capability.
- Instructs, assist and mentors lower level technicians.

## Other Functions

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- Leads large projects with minimal assistance.
- May manage workflow for a group of technicians including assignment of daily work, insuring successful completion of individual tasks for development programs.

- Pursues new tools, techniques, and new test processes to shorten cycle times and improve quality.

## **Knowledge/Skills/Abilities**

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- Ability to effectively work in a team environment and maintain good customer focus. Good understanding of organizational structure and flow of information in the company. Ability to direct or lead work of levels 1 & 2 Technicians; ability to lead larger teams with minimal assistance.
- Ability to read mechanical and electrical drawings, electrical packaging diagrams, hydraulic and electronic schematics and suggest design changes.
- Ability to read and use a wide range of precision mechanical, electrical, or software measurement devices.
- Ability to learn new and advanced instrumentation and data acquisition systems with minimal assistance. Good data collection and analysis skills.
- Extensive knowledge of Woodward products, component function and testing. Understands assembly and test processes, drawings and geometric tolerances as well as shop standards and procedures and how they impact designs.
- Effective written and verbal communication skills including presentations (internal only). Basic technical writing skills. Ability to interact effectively with customers during witness testing, customer visits and in similar situations.
- Competent PC skills using spreadsheet, word processing, and WISE screens.
- Ability to set up and troubleshoot moderately complex instrumentation, data acquisition systems and other Woodward product lines both internally and at the Customer.
- Competent knowledge of appropriate WISE applications such as BOM, Item Master, NCR, EC screens, part tracking.
- Thorough working knowledge of the electronics, test equipment, and general physical principles that govern complex electrical systems. Comfortable working with high voltage circuits.
- Maintain proper organization and cleanliness of test set ups, work areas and common areas. Follows all Woodward safety directives.
- Ability to be assigned to projects with no ramp up on required standard assembly and test methods.
- Specialized knowledge of a certain type of test situation or "special" skills in lieu of product development experience. Examples may vary by site.
- Ability to conceive and construct required fixturing, loading, holding, rigging, etc. equipment in order to perform required testing. This may involve machining, welding and other fabrication skills.
- Capability to show the need for, and subsequently implements new processes or equipment/facilities to ensure the Laboratories are capable of testing our latest products in the most efficient and cost-effective manner possible.

## **Education or Formal Training**

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(US) 2-year Associate of Applied Science degree in Electronics required.  
iNARTE certification a plus

(Germany) State-Certified Engineering degree required.

## **Experience Required**

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(US) With 2-year degree, minimum 3 years development technician experience required.

(Germany) With State-Certified Engineering degree, minimum of 1 year closely-related experience required after graduation.

(ALL) Experience in instrumentation, data acquisition and programming required.  
Six Sigma Green Belt Training desired.

### **Materials and Equipment Used**

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Personal computer, including word processing applications, spreadsheets and Woodward proprietary applications. Other laboratory instrumentation and equipment, test rigs, tooling.

### **Working Environment/ Physical Activities**

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Periodic night shift and weekend work may be required. Work requires general physical fitness; may be required to handle in excess of 25 lbs. Standing and bending throughout shift. May be required to pass near vision and / or color vision examination. Some traveling to International Sites, Customers and Test Labs may be needed.

