

**KUSTOM SIGNALS, INC.**  
**POSITION DESCRIPTION**

**Position Title:** Electronics Engineer (Speed Products)

**Department:** Design Engineering

**Reports To:** Engineering Manager – Speed Products

**Job Grade:** ?? EX

**Cost Center:** 10700

**Revision Date:** 09/21

**Position Summary**

Research, design, develop, test, and review the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, or law enforcement use. Design hardware and software for new and existing products. Execute this position by working across various workgroups to design, build, test, troubleshoot and implement technical projects. Support the management of development projects.

**Education**

Bachelor of Science in Engineering, Electrical Engineering Technology, or Computer Science.

**Experience**

Minimum 2 to 5 years' experience in hardware/firmware in electronic equipment design.

**Required Skills**

- Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
- Knowledge of design techniques, tools, and principals involved in production of precision technical plans, schematics, drawings, and models.
- Knowledge and understanding of electronic and mechanical design interrelationships.
- Proficient in Microsoft Project or other project management software.
- In-depth troubleshooting and problem resolution skills relative to product design, specifications, and materials.
- Understanding of embedded systems hardware architecture, bus structure and communication protocols including serial, USB and wireless networking.
- Ability to design and create firmware for embedded systems.
- Knowledge of signal processing principles and DSP programming.
- Ability to create Windows / Android application software for product testing and configuration a plus. (iOS Apple software application experience a plus)
- Project management experience including familiarity with creating work tasks, scheduling, planning, and requirements documentation.

- Critical thinking using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Learning strategies by selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.
- Good oral and written communication skills.
- Ability to function and contribute to a team atmosphere as well as interact with all levels of staff and upper management.
- Ability to work independently or in a team to complete tasks.

### **Supervisory Responsibilities**

Project management, team leadership and occasionally technician direction/instruction.

### **Duties and Responsibilities**

- Research and develop core technologies required for Kustom Signals to sustain or improve its competitiveness in Radar, Lidar and SMART-related products.
- Assist in analyzing and respond to Marketing's product requirements by establishing hardware/software design criteria.
- Design, develop, analyze and document product designs which meet the functional, cost, reliability, manufacturability and safety requirements of Kustom Signals.
- Occasionally serve as a project team leader throughout the new product development process, defining schedules, assigning tasks and quantifying progress against project goals.
- In conjunction with Manufacturing, Service, Purchasing, Quality and Sales personnel, resolve problems relative to product design, production, specifications and materials.
- Stay abreast of the latest electronic engineering technologies and developments.
- Serve as a mentor to other engineers and technicians within the company, helping them develop their design, analysis and problem-solving skills.
- Develop procedures and processes that lead to positive, repeatable design results.
- Other duties as assigned.

### **Equipment To Be Used**

Computers, telephones, development systems, Engineering software, and test equipment.

### **Typical Physical Demands**

- Sit, stand, walk, lift, bend, and reach.
- Drive a car/SUV day or night.
- Specific vision abilities require close vision and ability to focus.
- Travel the United States via car or airplane, and occasionally overseas visits may be required.

- Frequently lift ten (10) pounds and occasionally lift and/or move up to sixty (60) pounds and occasionally lift and/or move in excess of sixty (60) pounds using lifting aids, technologies, or appropriate assistance.

**Typical Mental Demands**

- Ability to read and comprehend instruction, correspondence, and memos.
- Ability to effectively present information to customers and other employees of the organization.

**Working Conditions**

- Quiet, temperature-controlled, typical office environment.
- Typical workweek will include eight (8) hours per day, five (5) days a week.
- Must work some evenings and weekends.

**Travel**

Approximately 5-10% travel to customer or supplier sites via car or airplane.

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The intent of this job description is to provide a representative summary of the types of duties and responsibilities that will be required of persons in these positions and shall not be constructed as a declaration of the specific duties and responsibilities of any particular position. Employees may be requested to perform job-related tasks other than those specifically presented in this description.

Employee Signature \_\_\_\_\_ Date \_\_\_\_\_

Supervisor/Mgr. Signature \_\_\_\_\_ Date \_\_\_\_\_