



LasX Industries, Inc.
4817 White Bear Parkway
White Bear Lake, MN 55110

651-407-0011 phone
651-407-0110 fax

www.lasx.com
jobs@lasx.com

Senior Electrical Engineer Position Description

Job Title: Senior Electrical Engineer
Department: Research & Development
Reports To: Controls Engineering Manager

Position Summary:

Highly motivated and experienced person interested in developing hardware and software for system controls. The Electrical Engineer is responsible for electrical design activities relating to industrial laser systems. He or she will work under the direction of the Research & Development Manager.

Major Duties and Responsibilities:

System electrical design, analysis, and testing for high-performance laser materials processing equipment. Development activities may include:

- ❖ Programmable Logic Devices
 - Interface and control
 - Hardware Description Language Programming
- ❖ Real-time hardware and software design
 - Embedded software programming and debugging
 - Circuit board level hardware design and prototyping
- ❖ Industrial electrical component selection and integration
 - Instrumentation – analog, digital, PWM signals
 - I/O systems, sensors, actuators, machine vision
- ❖ Motion control systems selection and integration
 - Programming servo motor systems
 - Linear motors, drives, and encoders
 - Robotics and other material handling devices
- ❖ Geometric and other mathematical algorithms relating to control of
 - Synchronized motion systems
 - Laser power
 - Materials processing
- ❖ Other duties as requested by LasX Management

Required Qualifications:

- ❖ Bachelor/Master/Doctorate in Electrical Engineering or related field
- ❖ Proven experience with Programmable Logic Devices hardware and software development
 - VHDL or Verilog, schematic capture
- ❖ Proven experience in developing mathematical algorithms and models of motion control systems
- ❖ Motion control experience with linear motors, roll-fed automation, robotics
- ❖ Hands-on experience with industrial electrical/electronic components and diagnostic equipment
- ❖ Proven ability to work in a team R&D environment
- ❖ Excellent verbal and technical writing skills
- ❖ Ability to represent LasX in a professional manner to customers and suppliers

Physical Requirements:

- ❖ Extensive time working at a computer workstation
- ❖ Working in a manufacturing environment