



## Senior Electrical Engineer

The Senior Electrical Engineer reports to the Electrical Engineering group manager. This position is part the Product Engineering team composed of engineers, designers, and drafters working on the development of new OMAX product lines.

The Senior Electrical Engineer performs the duties outlined below and collaborates extensively with other groups with regard to the development, improvement and maintenance of OMAX products. They will be responsible for taking ownership of assigned tasks and projects associated with product development and support by following OMAX procedures. The Senior Electrical Engineer performs tasks with minimal supervision and may be called upon to lead project development team activities and mentor junior level designers.

### **Duties:**

- Execute electrical engineering duties on a multi-disciplinary product development team tasked to facilitate the successful development, characterization, production and support of industrial water jet machining systems
- Prepare design requirements, performance specifications, functional descriptions, and validation plans appropriate to support highly reliable electrical circuit designs in electrically noisy environments
- Develop concept designs that meet product design goals
- Design and implement machine control systems involving motion control, stepper/servo drive systems, variable frequency drives, embedded controls, and industrial machinery control panels. Create and maintain product documentation.
- Provide technical expertise and guide efforts to effectively diagnose and solve problems from the customer support and production environments which are escalated to engineering for assistance.
- Perform all other duties as deemed necessary by the department manager or VP

### **Qualifications:**

- Passion for Electrical/Electronic engineering
- BS or MS degree Electrical Engineering and a minimum of 7 years' work experience in a product development environment
- Expertise with embedded control systems and programming (ARM, Microchip, C/C++, Assembly; USB, I<sup>2</sup>C, Ethernet communications)
- Experience with multi-axis machine motion control (stepper/servo drives, automated control loop gain tuning, traction drive positioning systems, lead screw/ball screw positioning systems)

- Familiar with the selection, application, interfacing, and programming of Variable Frequency Drives (VFDs)
- Circuit design capabilities including use of schematic capture and PCB design software (Altium or Eagle preferred, or experience with PADS, OrCAD, etc.)
- Familiarity with regulatory landscape (CE Machine Safety/EMC, NFPA79, UL 508A)
- Demonstrated ability to execute projects with an extraordinary sense for detail
- Excellent oral and written communication skills
- Experience with different Fieldbus systems (CAN, EtherCAT)
- Professional attitude and the ability to communicate and work across many levels of the organization including Management, Technical Support, Applications and Customers