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## ***Sr. Electrical Engineer***

### **Job description**

Rudolph Technologies, Inc. is a worldwide leader in the design, development, manufacture and support of defect inspection, advanced packaging lithography, process control metrology, and data analysis systems and software used by microelectronic device manufacturers worldwide. Our process control group is seeking an Sr. Electrical Design Engineer with demonstrated experience working with commercial product development. The engineer will work on a multi-disciplinary product development team to facilitate the successful development, characterization, production and support of industrial equipment to support semiconductor manufacturing market.

### **Responsibilities:**

- Assist in the development of system level performance characterization and validation test plans.
- Document design requirements, prepare functional descriptions and define performance specifications
- Perform circuit design, component selection, schematic capture, interconnect and cabling
- Guide PCB layout design work.
- Experience with motion controls, servo motors, stepper motors, industrial robotic systems and automation.
- PLD, FPGA and micro-controller programming
- Develop and document production test process requirements with pass fail criteria
- Select and validate critical system components
- Participate in system level characterization, validation and compliance test work
- Provide technical support to sales and service teams as needed to promote customer adoption and use of Rudolph wafer inspection systems.
- Provide excellent written and verbal communication of concepts, plans, status, proposals, designs, etc. to hardware and software team members.

- Responsible for applying applicable design principles and ensuring the designs comply with SEMI, CE, FCC, UL and other applicable standards.

## **Desired Skills and Experience**

### **Competency/Experience:**

- BS or MS Degree in Electrical Engineering and a minimum of 5 – 8 years' work experience in a product development environment.
- Established experience working with the development of integrated systems which include application of the following technology areas: automated machine control, motion control, staging, optics, imaging systems and illumination control, PC-based control systems, custom firmware/software and power management.
- Motion Control experience, including Galil, ACS
- Knowledge of Embedded Micro-processors such as Altera's Nios 2 a plus and use of PCB Layout Tools, knowledge of Altium a plus
- Knowledge of Safety Circuit Design, AC & DC power Supplies and AC power Control
- Familiarity with semiconductor wafer processing and/or defect inspection equipment and relevant compliance standards is a strong plus (SEMI, CE, UL, CDRH)
- Ability to study and understand the functional relevance of existing RTEC product designs quickly and contribute meaningfully to support product development and support needs.
- Knowledgeable of product development concepts, practices and procedures.
- Ability to work in a fast paced, highly dynamic environment.
- Professional attitude and the ability to communicate and work across many levels of the organization including Management, Technical Support, Applications and Customers.
- Knowledge of FW and familiarity with FPGA's, ASICs and Verilog Description language