



05/04/2011

POSITION DESCRIPTION

Job Title:	Controls Engineer	<input checked="" type="checkbox"/> Exempt
Department name:	Electrical Engineering	<input type="checkbox"/> Non-exempt
Manager:	Manager- Electrical Engineering	
Work location:	Billerica, MA	

Job summary

Performs complicated control system engineering work of major complexity that requires a high degree of technical competence. Conducts independent technical investigations involving the application of a wide variety of engineering principles. Leads large development projects and will direct engineers, designers, technicians and other cross-functional support staff.

Essential duties and responsibilities

- Work with customers, Sales and Marketing, and other engineers to develop specifications for control systems.
- Select both hardware and software control system components for furnace and automation equipment.
- Design, document and program algorithms using PLC's, smart controllers, and similar devices for the control of furnace and automation equipment.
- Design and program User Interface applications that provide equipment users easy to use control interface to furnace and automation equipment.
- Recommends electrical hardware, instrumentation, sensors and controls for inclusion in design specifications based on past experience and on catalogue reference data.
- Design electrical systems both power and control to support furnace and automation equipment
- Duties include full technical responsibility for planning, organizing and conducting full product development projects within the design, fabrication, modification and evaluation of industrial equipment.
- Will interact with other Engineers, Designers, Sales, Marketing, Manufacturing, and Purchasing personnel to complete design projects quickly and cost effectively.
- Will travel globally to solve complex problems with equipment in the field, provide technical expertise to the Sales organization, work with and develop suppliers, interact and direct engineering activities.
- Makes complex alterations to drawings/models and bills of material that may involve the redesign of equipment, mechanisms or circuits.
- Study industry standards and ensure that designs are safe and meet applicable industry safety requirements
- Actively Participate in Design Reviews. Review designs with other Engineering, Manufacturing, Sales, and Marketing personnel as well as equipment users to ensure that designs meet all requirements.
- Prepare and present written, oral visual material to support proposals, presentations, design reviews and written reports.
- Develop cost estimates for proposed projects which include labor and material costs
- Maintain project folders and report project status to Manager, Engineers and others on a regular basis.
- Plan, perform or direct and document experiments to prove design performance
- Coordinate project tasks and schedules, delegate work to programmers, designers / drafters and support staff as required.

- Interact with customers and support groups, affected by design development, to obtain and communicate pertinent project information.
- Duties are performed with little supervision by more senior engineering staff.
- Strictly adhere to all BTU safety policies.

Skills and knowledge

- Able to create and apply advanced control algorithms
- VB, C, C++, PLC Ladder
- Good technical writing skills
- Good verbal communication
- Ability to work with and direct others in an effective manner
- Electrical Engineering for machine control circuits, motors, drives, sensors and instrumentation
- Microsoft Office proficiency.
- Planning skills and ability to work to a schedule

Education and experience

- BS or MS in Electrical Engineering or Computer Science
- Minimum 10 years engineering experience
- Project Management