

ASPECT AUTOMATION Position Description

Position Title: Senior Control Engineer
Department: Control Engineering
Reports to: Control Engineering Manager

Primary Objective of Position:

Design and implement custom industrial control systems from concept through delivery.

Major Areas of Accountability:

1. Technical Responsibilities

- Develop control concepts and set control direction on complex projects.
- Provide initial estimates of control system costs for quotations, based on understanding of customer requirements. Cooperate with Applications Engineering team to evaluate project feasibility
- Design cost-effective control systems for custom machinery, including hardware design, programming, safety analysis, and technical documentation.
- Analyze technical challenges and devise creative solutions by drawing on available resources.
- Provide guidance and support for shop personnel during the electrical assembly of control systems and machines.
- Lead and participate in control system debug and provide on-site installation and training as required by project specifications.

2. Personal Responsibilities

- Work proactively and independently to complete projects on time and within budget.
- Motivate self and others in a positive and professional manner.
- Delegate appropriately to engineering support and shop personnel.
- Communicate effectively with team members and management regarding project status, resource requirements, and potential obstacles to success.
- Effectively communicate with customers, other employees and vendors to ensure that appropriate information is exchanged while working toward the goal of successful project completion.
- Lead project teams as required.

3. Departmental Support and Development

- Keep current with new technology, engineering methods, and standards within the automation industry.
- Actively participate in ongoing process improvement by contributing to engineering standards, procedural audits, and project design reviews.
- Facilitate the professional development of self and colleagues by constructively sharing lessons learned through project successes and failures.
- Participate in training and mentoring of other employees as appropriate.

Essential Qualifications:

- A bachelor's degree in electrical engineering and a minimum of five years of relevant experience, or a related two-year post high school diploma/certificate and a minimum of seven years of relevant experience, or an equivalent combination of education and relevant experience.
- Proficiency in the design of electrical control systems for industrial machinery, including power distribution, PLC configuration, and machine safety.
- Experience in preparing engineering documentation including Electrical Schematics, Bills of Material, Process & Instrumentation Diagrams, and Operator and Maintenance Manuals.
- Extensive experience with Programmable Logic Controller programming on a variety of platforms.
- Ability to troubleshoot complex electrical and logical systems in an efficient and accurate manner.
- Demonstrated effective interpersonal and written communication skills.

Desired Qualifications:

- Expertise in Rockwell Automation ControlLogix family of programmable controllers.
- Thorough knowledge of standards relevant to industrial machinery, including NFPA79, UL508A, NEC, EN ISO 13849 and IEC/EN 62061.
- Proficiency in configuring, tuning, and programming servo-based motion control systems.
- Experience configuring and programming Industrial Robots.
- Understanding of computer networking, TCP/IP, and industrial fieldbus architectures such as Ethernet I/P.
- Knowledge of concepts of modular programming as defined in ISA-88 and/or PackML.
- Experience with multiple IEC 61131-3 programming languages (Ladder Logic, Function Block Diagram, Structured Text, Sequential Function Chart, Instruction List).

- Experience with an Electrical Engineering CAD program, such as Solidworks Electrical, AutoCAD Electrical, ePlan, or similar product.
- Knowledge GAMP principles and procedures.

ADA Requirements:

- Sit, grasp items and perform keyboarding frequently.
- Stand, walk, bend, and reach occasionally.
- Normal vision.
- Normal hearing.
- Ability to communicate verbally.
- Hand-eye coordination for efficient CAD system operation is necessary.