

ASPECT AUTOMATION Position Description

Position Title: Controls Engineer
Department: Controls Engineering
Reports To: Controls Engineering Manager

Primary Objective of Position

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

Major Areas of Accountability

1. Technical Responsibilities

- Design cost-effective control systems for custom machinery, including hardware design, programming, safety analysis, and technical documentation.
- Identify technical challenges and seek creative solutions by drawing on available resources.
- Coordinate with shop personnel during the electrical assembly of control systems and machines.
- Participate in control system debug and provide on-site installation and training as required by project specifications.

2. Personal Responsibilities

- Work proactively, with minimum supervision, to complete projects on time and within budget.
- Motivate self and others in a positive and professional manner.
- Cooperate appropriately to engineering support and shop personnel.
- Communicate effectively with team members and management regarding project status, resource requirements, and potential obstacles to success

3. Departmental Support & Development

- Keep current with new technology, engineering methods, and standards within the automation industry.
- Actively participate in ongoing process improvement by adhering 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.

Essential Qualifications

- A bachelor's degree in electrical engineering and a minimum of three years of relevant experience, or a related two-year post high school diploma/certificate and a minimum of five 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

- Experience with Rockwell Automation ControlLogix family of programmable controllers.
- Familiarity with standards relevant to industrial machinery, including NFPA79, UL508A, NEC, EN ISO 13849 and IEC/EN 62061.
- Some experience configuring, tuning, and programming servo-based motion control systems.
- Experience configuring and programming Industrial Robots.
- Basic understanding of computer networking, TCP/IP, and industrial fieldbus architectures such as Ethernet I/P.
- Familiarity with concepts of modular programming as defined in ISA-88 and/or PackML.
- Familiarity 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.
- Exposure to GAMP principles and procedures.

ADA Requirements

- Typically sits, grasps items and performs keyboarding for frequent operation of a computer
- Stand, walk, bend, reach or otherwise move about regularly

- Lift, move, or otherwise transfer items up to 40 lbs. occasionally, >20 lbs. frequently
- Occasional exposure to typical machine shop physical hazards
- Travel by air or car frequently