

# **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**

1. 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.
2. Proficiency in the design of electrical control systems for industrial machinery, including power distribution, PLC configuration, and machine safety.
3. Experience in preparing engineering documentation including Electrical Schematics, Bills of Material, Process & Instrumentation Diagrams, and Operator and Maintenance Manuals.
4. Extensive experience with Programmable Logic Controller programming on a variety of platforms.
5. Ability to troubleshoot complex electrical and logical systems in an efficient and accurate manner.
6. Demonstrated effective interpersonal and written communication skills.

### **Desired Qualifications**

1. Experience with Rockwell Automation ControlLogix family of programmable controllers.
2. Familiarity with standards relevant to industrial machinery, including NFPA79, UL508A, NEC, EN ISO 13849 and IEC/EN 62061.
3. Some experience configuring, tuning, and programming servo-based motion control systems.
4. Experience configuring and programming Industrial Robots.
5. Basic understanding of computer networking, TCP/IP, and industrial fieldbus architectures such as Ethernet I/P.
6. Familiarity with concepts of modular programming as defined in ISA-88 and/or PackML.
7. Familiarity with multiple IEC 61131-3 programming languages (Ladder Logic, Function Block Diagram, Structured Text, Sequential Function Chart, Instruction List).
8. Experience with an Electrical Engineering CAD program, such as Solidworks Electrical, AutoCAD Electrical, ePlan, or similar product.
9. 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