

ASPECT AUTOMATION

Position Description

Position Title: Controls Engineer - Web Handling Systems
Department: Controls Engineering
Reports To: Controls Engineering Manager

Primary Objective of Position

Design and implement control systems for custom web handling machinery, from concept through delivery, including system architecture, electrical design, programming, debug, tuning, and optimization of high performance manufacturing equipment for the life sciences industry.

Major Areas of Responsibility

- Electrical Design
 - System Architecture
 - Component Selection & Sizing
 - Network Design
 - Functional Safety Assessment and Design
- System Programming
 - PLC-based Motion Control Programming
 - Tuning and Optimization of Complex Control Loops
 - State Control and Sequencing
 - Machine Vision Integration
- Debug & Testing
 - Troubleshoot Machine Logical Operation
 - Optimize Process Performance for Low Waste and High Productivity
 - Implement Robust Fault Recovery to Minimize Down-Time
- Documentation
 - Develop Functional and Software Design Specifications
 - Execute of Test Protocols
 - Prepare Technical Manuals
- Technical Leadership
 - Coordinate Activities among Cross-Functional Project Teams
 - Pro-Actively Participate in Design Reviews and Process Improvement
 - Effectively Communicate with Customers
 - Communicate Project Status and Challenges to Management Team
 - Keep current with New Technology, Engineering Methods, and Standards within Automation Industry

Essential Qualifications

- A bachelor's degree in electrical engineering 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 system architecture, power distribution, PLC configuration, network design, and machine safety.
- Extensive experience with Programmable Logic Controller programming on a Rockwell ControlLogix platform.
- Extensive experience with Motion Control programming on a Rockwell Kinetix or similar platform.
- Proficiency in configuring, tuning, and programming servo-based motion control systems.
- Experience with web handling machinery, including tension control, registration, and/or die cutting operations.
- Ability to troubleshoot complex electrical and logical systems in an efficient and accurate manner.
- Demonstrated effective interpersonal and written communication skills.

Desired Qualifications

- Knowledge of concepts of modular programming as defined in ISA S88 and/or PackML.
- Experience with multiple IEC 61131-3 programming languages (Ladder Logic, Function Block Diagram, Structured Text, Sequential Function Chart, Instruction List).
- Understanding of computer networking, TCP/IP, and industrial fieldbus architectures such as Ethernet I/P.
- Working knowledge of Machine Vision systems, including Cognex Insight, Keyence, or similar platforms.
- 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.