

## Industrial Controls & Automation Engineer / Pekin - Mexico

**Extended travel to Mexico required**

Full-time

Long hours, off-shift, and weekend work is always a possibility as a project dictates. ~15%

Manufacturing Maintenance Solutions, Inc. (MMS), is a manufacturing process support organization committed to 100% customer satisfaction. The members of the MMS team are highly engaged, skilled and customer focused. MMS offers its customers the highest quality work available and are devoted to providing customer satisfaction that is unmatched in our industry. We understand that personal development is important to our team members and our customers. We have made the commitment to ensure that the tools to continuously sharpen our skills, are available (through our Skills Training Department).

### Overview of Position:

Manufacturing Maintenance Solutions (MMS) looking for Industrial Controls & Automation Engineer. Engineer will execute a project through the full project life-cycle including but not limited to; Project procurement, Electrical Controls Design, and Project Management. Meets with the customer to discuss requirements and provide cost effective designs, and accurate quotes for labor and material

#### Project Management & Execution:

- Tracks project costs (material and labor) and timelines
- Constantly communicates with the customer to coordinate project schedules and status.
- Works with internal managers to handle project man-power (labor) needs.
- On-site at customer location for project installation.
- Project start-up: power-up, commissioning, system testing & troubleshooting.

### Required Skills & Qualities:

- A four-year Bachelor of Science degree in Engineering, or a two-year degree with extensive experience in Control System design
- Can design complete industrial electrical control systems. Including: Electrical schematics, panel layouts, conduit layouts, BOMs, network diagrams, etc.
  - Preferred design environment is AutoCAD.
- Can specify and purchase the necessary material for a project.
- Design coordination with other internal departments (mechanical engineers, millwrights, welders, etc.)
- Able to calculate panel ratings (SCCR, arc flash level, FLA, etc.) is a plus.
- Familiarization with safety standards and risk assessment procedures is a plus.
- PLC Programming (ladder logic, structure text, function block, etc.)
  - Understands complex PLC/PAC programming methods.
  - Experience with Allen-Bradley products (RSLogix 500 & 5000) is a plus.
- Visual Display Layout / Programming (HMIs, Touch Screens, etc.)
  - Familiarity with Allen-Bradley PanelViews is a plus

### Required Skills & Qualities (cont.):

- Drawing in a 2D CAD Environment
  - Proficient in CAD drawing/drafting methods
  - 3D Modeling is a plus
- High-Level Programming (OOP is a plus)
  - Can program in at least one high-level language:
  - Examples: Java, C++, .NET, Borland, VisualBasic, etc.
- Understanding of Ethernet Networks
  - Understands ethernet networking concepts, ie: addressing, packets, etc.
- Industrial Communication Protocols
  - Knowledge of factory communications such as RS-232, Industrial Ethernet, DeviceNet, ControlNet, and Profibus, will be required to succeed in this position
- Motion Control
  - Experience with specifying, integrating, programming, tuning and/or commissioning different electric motor VFD and/or servo control systems.
  - Understands the basics of motion control (PID loop tuning, etc.)
  - Knowledge of variable speed drives is required
- Hands-on Engineer
  - Troubleshooting skills (using a meter/scope/PC to trace a problem) is required
- Experience with CNC Machine Tools is a plus (but not required)
  - Understanding of machine tool design and concepts:
  - Understands basic machining nomenclature.
  - Understands axis control methods (feedback methods, fully-closed vs semi-closed positioning, position compensation methods, etc.)
  - Understands spindle / table drive concepts
- Other Optional Expertise Areas
  - Robot programming / teaching experience is a plus.
  - Familiarization with vision systems is a plus.
  - Printed Circuit Board (PCB) circuit design and/or troubleshooting is a plus.
  - Familiarity with the following standards is a plus:
    - NFPA 70 (NEC)
    - NFPA 70E (Standard for Electrical Safety)
    - NFPA 79 (Electrical Standard for Industrial Machinery)
    - ANSI/RIA R15.06 (Robot Safety)
- Must have a valid state driver's license, vehicle insurance and dependable vehicle
- Must be a U.S. citizen or permanent resident of U.S.

## Responsibilities:

- Accountable for the equipment with which the employee works or has control over, as well as the need for observation of the process/product to minimize product loss.
- Responsible for any equipment requiring maintenance work.
- Responsible for maintaining accurate parts use records.
- Responsible for all materials and tools used on the job or special projects
- Responsible for maintaining product integrity.
- Responsible for company equipment.

Do you want to learn up-to-the-minute technology? Do challenges excite you? Are you interested in different experiences daily? Then joining our team is the choice to make. We offer competitive wages and benefits along with our extensive education and training program.