



First Solar Job Description

Job Title: Controls Engineer I

Reports To: Manager I

Job Status: Exempt

Basic Job Functions:

The following is an entry level corporate controls position where a successful candidate will be required to support manufacturing operations, assist with equipment implementation/startup, development of electrical controls systems/designs, PLC/HMI programming, data collection and optimization of manufacturing processes control systems. This position directly supports a manufacturing site, the successful candidate will be assigned to a manufacturing schedule on either AM or PM crew/shift. AM shift is 6:00AM - 6:10PM. PM shift is 6:00PM - 6:10AM. This results in a rotating 36/48 hour work week schedule, which includes working every other Friday, Saturday and Sunday.

Education and Experience:

- Associates/Bachelor's degree in Electrical Engineering, Computer Engineering, or related field; or equivalent years of work experience
- Minimum 1 – 5 years of manufacturing equipment controls engineering experience.

Required Skills/Competencies:

- Good understanding/knowledge and experience in controls engineering techniques and practices which would be required for global facilities including North America, Asian, and European countries.
- Proven understanding/knowledge and ability to trouble-shoot electrical/electronic control systems.
- Good understanding/knowledge of global manufacturing processes and safety requirements.
- Proficient using Auto Desk AutoCad drafting software to create electrical schematic and panel layouts.
- Good understanding/knowledge programming of Rockwell Automation Logix platform PLC's, including ladder and function block diagram.
- Good understanding/knowledge programming Rockwell Automation Human Machine Interfaces (HMI) including PanelView Plus, PanelView Plus CE, and FactoryTalk View ME/SE.
- Good understanding/knowledge designing, programming, and commissioning at least two control network including ControlNet, DeviceNet, Profibus and/or Ethernet.
- Good understanding/knowledge of robotic systems including programming, safety requirements, and design/implementation practices.
- Good understanding of computer hardware/applications and the Microsoft Office family.
- Basic understanding of corporate Ethernet architectures and systems.
- Basic understanding of corporate server architecture and
- Good communications skills both oral and written.
Proven problem solving skills

Essential Responsibilities:

Primary Responsibilities:

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- Responsible for support of manufacturing facilities, including remote support of world-wide manufacturing facilities.
- Responsible for designing, programming, and coordination of small scale control systems and projects.
- Responsible to assist with coordination of new equipment installation and implementation.
- Responsible for maintaining and updating of manufacturing process tool electrical drawings, ensuring the tracking of equipment changes is documented and drawings are kept current.
- Responsible for troubleshooting and problem solving equipment controls related issues.
- Responsible to interface with multiple departments within the organization to ensure corporate controls policies/standards are understood and being adhered to.
- Responsible to assist senior engineers on large projects.
- Maintain effective communications levels and fosters team building.
- Ensures adherence to all safety procedures and good housekeeping standards.

Key Competencies:

- Takes responsibility for understanding client requirements, collecting data, delivering analysis and problem resolution. Identifies, evaluates and recommends options, implementing if required. Collaborates with, and facilitates stakeholder groups, as part of formal or informal consultancy agreements. Seeks to fully address client needs, enhancing the capabilities and effectiveness of client personnel, by ensuring that proposed solutions are properly understood and appropriately exploited.
- Contributes to research goals and builds on and refines appropriate outline ideas for the evaluation, development, demonstration and implementation of research. Uses available resources to gain an up-to-date knowledge of any relevant IT field. Reports on work carried out and may contribute significant sections of material of publication quality. Contributes to research plans and identifies appropriate opportunities for publication and dissemination of research findings.
- Maintains awareness of opportunities provided by new technology to address challenges or to enable new ways of working. Within own sphere of influence, works to further organizational goals, by the use of emerging technologies and products. Contributes to briefings and presentations about their relevance and potential value to the organization.
- Specifies user/system interfaces, and translates logical designs into physical designs taking account of target environment, performance requirements and existing systems. Produces detailed designs and documents all work using required standards, methods and tools, including prototyping tools where appropriate.
- Designs, codes, tests, corrects, and documents moderately complex programs and program modifications from supplied specifications, using agreed standards and tools. Conducts reviews of supplied specifications, with others as appropriate.
- Assists with the collection of safety assurance evidence, undertaking all work in accordance with agreed safety, technical and quality standards, using appropriate methods and tools. Documents the results of hazard and risk analysis activities.
- Investigates and recommends components and subsystems that meet sustainability criteria.

- Reviews requirements and specifications, and defines test conditions. Designs test cases and test scripts under own direction, mapping back to pre-determined criteria, recording and reporting outcomes. Analyses and reports test activities and results. Identifies and reports issues and risks associated with own work.
- Performs, analyses and documents evaluations according to a plan, excluding expert reviews.
- Defines the integration build and produces a build definition for generation of the software. Accepts software modules from software developers, and produces software builds for loading onto the target hardware from software source code. Configures the hardware environment, produces integration test specifications, conducts tests and records the details of any failures. Carries out and reports fault diagnosis relating to moderately complex problems.
- Configures software and equipment and tests platform-specific versions of one or more software products. Reports the outcome of testing and identifies potential improvements to the process and to the software products according to agreed designs and standards.
- Installs or removes hardware and/or software, using supplied installation instructions and tools including, where appropriate, handover to the client. Conducts tests, corrects malfunctions, and documents results in accordance with agreed procedures. Reports details of all hardware/software items that have been installed and removed so that configuration management records can be updated. Provides assistance to users in a professional manner following agreed procedures for further help or escalation. Maintains accurate records of user requests, contact details and outcomes. Contributes to the development of installation procedures and standards.
- Uses system management software and tools to collect agreed performance statistics. Carries out agreed system software maintenance tasks.
- Identifies and resolves issues with applications, following agreed procedures. Uses application management software and tools to collect agreed performance statistics. Carries out agreed applications maintenance tasks.
- Carries out agreed operational procedures of a routine nature. Contributes to maintenance, installation and problem resolution.
- Identifies and resolves network problems following agreed procedures. Uses network management software and tools to collect agreed performance statistics. Carries out agreed network maintenance tasks.
- Initiates and monitors actions to investigate and resolve problems in systems and services. Assists with the implementation of agreed remedies and preventative measures.
- Receives and handles requests for support following agreed procedures. Responds to requests for support by providing information to enable incident resolution and promptly allocates unresolved calls as appropriate. Maintains records and advises relevant persons of actions taken.

US Physical Requirements:

Potential candidates will meet the education and experience requirements provided on the above job description and excel in completing the listed responsibilities for this role. All candidates receiving an offer of employment must successfully complete a background check and any other tests that may be required.

Equal Opportunity Employer Statement: First Solar is an Equal Opportunity Employer that values and respects the importance of a diverse and inclusive workforce. It is the policy of the company to recruit, hire, train and promote persons in all job titles without regard to race, color, religion, sex, age, national origin, veteran status, disability, sexual orientation, or gender identity. We recognize that diversity and inclusion is a driving force in the success of our company.

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