

Job Title	Controls Engineer II	Effective Date:	01/01/2019
Department:		Revised Date:	

JOB DESCRIPTION

Job Location:	Corporate Headquarters	Company Industry:	Engineering consulting
Job Role:	Engineering Team	Travel Required:	50%
Employment Status:	Full Time	Employment Type:	Exempt, at will
Reports to:	Engineering Manager	Manages Others:	No

Position Summary:

The Controls Engineer II shall demonstrate advanced skills in requirements gathering, configuration, integration and implementation of process control solutions including batch software, PLC / DCS systems, HMI packages, SCADA systems, PC networking technology. The ideal candidate must have knowledge of process control, field instrumentation, and DCS technology expertise in all the following project phases: Interpretation of documentation, detailed design generation, implementation, system integration, testing and on-site startup. Daily responsibilities include solutions implementation and support of the project team objectives.

The Controls Engineer II is self-motivated and dedicated with a strong sense of initiative and the ability to easily adapt to changing situations. He/she must also have strong technical, programming skills and solid organizational, time-management and prioritization skills. It is also important for controls engineer to have excellent verbal and written communication, interpersonal and customer service skills with the ability to collaborate effectively with a wide range of people at all levels of expertise.

Responsibilities

- Work with the customer and/or other team members to interpret process and instrumentation diagrams (P&IDs).
- Develop project documentation including, but not limited to, device lists, I/O lists, electrical contractor documentation, and factory acceptance testing documentation.
- Design & develop PLC, DCS and HMI programs
- Design control system networks.
- Designs and configure control system server infrastructure.
- Hardware engineering and design – electrical drawings and panel layout drawings for the project.
- Help with the development, improvement and documentation of engineering (technical) processes.
- Works with project management, understands project scope, schedule and budget allocated to the project. Identifies barriers and communicates to project management in a timely an effective manner.
- Commission control systems including device configuration, I/O checkout.
- Posses basic PID tuning skills
- Troubleshoot control systems (software, hardware, and electrical and field devices).
- Ensure that the projects are completed on time and on budget.
- Meets with both customer and internal project teams to define applications.

- Advises on component selection and bill of material preparation as needed.
- Able to multitask on multiple projects and project elements.
- Configuring standard PLC/DCS software programs for real-time control of automated equipment and collection of diagnostic and production data.
- Customizing standard products to meet the requirements of each project.
- Interfacing to devices such as network I/O, variable speed drives, and other foreign devices.
- Actively participates with other engineering team members in field wiring on large projects.
- Conducting in-house factory acceptance testing (FAT) and site acceptance testing (SAT) of the system as installed at the customer's facility.
- Interact with control panel fabrication and electrical installation personnel.
- Providing customer training and support; acts as mentor to Controls Engineer I team members.
- Generating project specific documentation using standard company formats.
- Provide sales support, including giving presentations as required.
- Actively participates in research and development projects.
- Participates in engineering call rotation per company policy.
- Accurately and timely completes all time recording in the organization's time management system.
- Complies with all safety training requirements of the organization and/or the customer.

Essential Skills:

- Professional demeanor, self-motivated, energetic and enthusiastic with excellent communication and intrapersonal skills.
- Experience and proficiency with PLCs, HMI and industrial controls. Will be expected to be proficient in at least two technology platforms.
- Proficient with PC operating systems, hardware, and networking.
- Ability to interpret/understand electrical drawings.
- Knowledge of process safety.
- Understanding of PID loops.
- Strong troubleshooting skills.
- Attention to detail and superior time management skills.
- Analytical skills, ability to work under pressure, decision making & problem-solving skills.
- Strong knowledge of MS Office Applications and baseline understanding of functionality of SQL databases.
- Ability to read electrically drawings and make necessary revisions; understands circuit diagrams.
- Strong written and verbal communication ability.
- Able to establish priorities and manage workload effectively.
- Self-starter who can work either independently or as part of a team.
- Ability to travel to customer sites.

Education and Qualifications

- Minimum of an associate degree in relevant engineering technology field or study with acceptable experience of computer programming and computer systems operation with three to five (3-7) years' experience in controls engineering or similar role.
- Experience with automation (PLC/DCS) and electrical system design, diagnosis, and operation. Must have an acceptable driving record.
- Technical certifications are definite plus.
- Must be able to pass background and drug testing.
- Must be a US citizen or be able to work legally in the United States without sponsorship.

Physical Requirements

Please check all that apply to this position. When appropriate, enter the percent of time the position requires that activity and/or the amount (percentages do not have to total 100%).

Activity	% of time	Activity	% of time
Standing	20%	Sitting	80%
Laying Down	0%	Crouching	10%
Crawling	0%	Twisting	0%
Kneeling	10%	Reaching	5%
Pushing Average Wgt: 25# Max Wgt: 50#	5%	Computer Use	95%
Lifting Average Wgt: 25# Max Wgt: 40#	25%		

Vision Required: <input type="checkbox"/> yes <input type="checkbox"/> no	Hearing Required: <input type="checkbox"/> yes <input type="checkbox"/> no
Speaking Required: <input type="checkbox"/> yes <input type="checkbox"/> no	Ability to detect color required: <input type="checkbox"/> yes <input type="checkbox"/> no
Proficient in English: <input type="checkbox"/> yes <input type="checkbox"/> no	PPE required: <input type="checkbox"/> yes <input type="checkbox"/> no See Hazard Assessment Form link below.
Manual dexterity Required: <input type="checkbox"/> yes <input type="checkbox"/> no	

PPE Risk Assessment: [\\ta-file\ta_common\Forms & Templates\Published Documents\Business Services\HR\PPE Hazard Forms\PPE Hazard Assessment Form v1 102016_Engineering Team.docx](#).