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## **JOB DESCRIPTION: Controls Engineer**

### **Summary**

Participate in electrical control design and commissioning. Follow Alliant Technologies' standards in electrical controls design, PLC programming and commissioning.

### **Essential Duties and Responsibilities**

- Understand project schedule and objectives.
- Understand project requirements by studying project specifications, customer requirements, and performance standards.
- Follow Alliant's standards in electrical controls design, PLC programming and commissioning.
- Contribute to team effort by participating in assigned engineering activities.
- Communicate with project engineer and/or project manager regarding progress or problems related to the project.
- Confirm product performance by conducting verification tests.
- Ensure quality on all engineering deliverables.
- Keep standardization high and constantly improve processes.
- Keep current with technology.
- Any other task as directed by management.

### **Responsibility and Authority**

- Responsibility: Noted above. Complete assigned tasks on time and within allocated budget while maintaining high output quality, customer satisfaction, engineering process, engineering quality.
- Authority: Engineering technical decisions within spec compliance and Alliant's standards.

### **Qualifications**

- B.S. Electrical Engineering or equivalent combination of education and experience.
- Strong analytical, verbal, and written communications skills.



2080 Nelson Miller Parkway  
Louisville, KY 40223-3172  
Phone: 502-244-7313

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## **Language Ability**

Adequate conversational English is required in order that the individual be able to take direction from management, understand how to complete job tasks, communicate adequately with co-workers and customers, understand and follow safety guidelines, and understand the Alliant Technologies Employee Handbook and all company policies. Must be able to interpret written warnings as posted in all work areas in both the Alliant Technologies office or at any work site where Alliant Technologies performs work.

## **Experience**

- 0-5 years controls experience.
- Experience designing controls systems, commissioning, and troubleshooting PLC industrial control systems (e.g. Rockwell, Square D, and Siemens) and their industrial networks (e.g. ControlNet, DeviceNet, Modbus, Profibus, and Ethernet).
- Competency with field installation supervision, monitoring Electrical installation subcontractors, and closing of jobs.



**Alliant Technologies  
 Job Demands**

**Position:** Controls Engineer

Physical & Mental Demands	Extent			
	Continuous Over 70%	Frequent	Occasional	Rarely
<b>Physical Demands</b>				
Standing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Walking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climbing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bending	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Crouching	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pushing/Pulling	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Carrying	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lifting/Lowering 1-15 lbs.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15-30 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30-50 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Over 50 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fine Hand/Eye Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Color Discrimination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hearing Acuity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Mental Demands</b>	<b>Continuous Over 70%</b>	<b>Frequent</b>	<b>Occasional</b>	<b>Rarely</b>
Concentration on detail	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Attention span 1+ hours on a task	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to remember multiple tasks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oral communication	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Written communication	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Working Conditions</b>	<b>Continuous Over 70%</b>	<b>Frequent</b>	<b>Occasional</b>	<b>Rarely</b>
Exposure to toxins, cytotoxins, poisons	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exposure to extreme heat, cold, temp fluctuations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposure to hazardous chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Exposure to radiation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other (Specify: )	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Sensory Requirements</b>	<b>Is Crucial</b>	<b>Is useful</b>		
See	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Distinguish colors	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Hear/Listen	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Taste	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Smell	<input type="checkbox"/>	<input checked="" type="checkbox"/>		

<i>Sensory Requirements</i>	<b>Is Crucial</b>	<b>Is useful</b>		
Touch	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Speech	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

<b>Mental Effort</b>	<b>Work Environment</b>
Check all functions performed on a daily basis... <input checked="" type="checkbox"/> Reading <input checked="" type="checkbox"/> Basic arithmetic <input type="checkbox"/> Advanced mathematics <input type="checkbox"/> Weighing/measuring <input checked="" type="checkbox"/> Visualizing conclusions <input type="checkbox"/> Analyzing data <input checked="" type="checkbox"/> Searching for solutions <input checked="" type="checkbox"/> Creating methodologies <input checked="" type="checkbox"/> Conducting research <input type="checkbox"/> Managing resources <input type="checkbox"/> Evaluating performance of others	% of time spent: <u>90</u> Indoors <u>10</u> Outdoors  The air is: <input checked="" type="checkbox"/> Clean/Normal/Average <input checked="" type="checkbox"/> Dusty/Dirty <input checked="" type="checkbox"/> Wet/Humid <input type="checkbox"/> Affected by smoke, fumes, etc.  You work on a surface that is: <input checked="" type="checkbox"/> Level <input type="checkbox"/> Uneven <input type="checkbox"/> Sloping <input type="checkbox"/> Slippery  Noise level is: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Loud



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**Acknowledgement of Job Description/Demands**

**Position:** Controls Engineer

I acknowledge that I have received and reviewed the job description for the position above, including the demands associated with this position.

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Printed Name**