



**Position:** Controls Software Engineer  
**Reports To:** Controls Engineering Manager

**Basic Function:**

This Engineering position is responsible for developing software that conforms with IPS design standards and customer or Marketing specifications. Responsibilities include participation in the development of software standards, design specifications for marketing activities, and complex project assignments. Communication with customers and functional groups within the company is an important aspect of this position. Engineers in this position must have strong software capabilities coupled with an ability to achieve schedule, budget, and quality objectives.

**Core Competencies:**

- Experience with Allen Bradley PLC's including RSLogix and Factory Talk Studio programming software.
- Experience with Siemens PLC's and/or CNC's including Step 7 and WinCC programming software.
- Experience with Fanuc CNC's including Fladder and Fapt Picture programming software.
- Must have the ability to write ladder logic for CNC and/or PLC control systems.
- The ability to create HMI screens and the associated logic.
- Knowledge of structured programming techniques and advanced data structures.

**Preferred Competencies:**

- Has an understanding of industrial networks such as ProfiBus, ProfiNet, AS-i, and EtherNet/IP.
- Skills including the reading of electrical/pneumatic/hydraulic schematics and knowledge of control system components.
- The ability to write logic in "M" and "G" codes for CNC machines.
- Experience in the integration and programming of Cognex machine vision.
- Experience with AutoCAD Electrical for electrical system design.
- The ability to design electrical systems for CNC and/or PLC control systems.

## Controls Hardware Engineer Job Description

### **Education/Experience:**

- A Bachelor's Degree in the required technical field is desired. In the absence of a Bachelor's Degree, and Associates Degree in the field and 3 or more years of experience is required. Extensive experience and demonstrative performance in the required area will also be considered.

### **Duties and Responsibilities:**

- Develops new software to meet customer or Marketing specifications.
- Works with supervision to maintain project schedules and budgets.
- Supports the development and maintenance of department standards.
- Documents software designs to IPS and/or customer standards as required by the project.
- Provides assistance to other functional groups (Manufacturing, Assembly, Customer Service, etc.) throughout the life of the project.
- Assist in the preparation of machine operator and maintenance manuals.
- Provide technical training as required.
- Maintains technical competency and works to expand technical skills and knowledge.
- Travel is required for this position.

### **Work Environment Summary:**

The individual in this position typically works in an office environment and uses a computer, telephone, and other office equipment as needed to perform duties. Employees may encounter frequent interruptions throughout the workday and are regularly required to communicate with others, use repetitive hand motion, sit, stand, walk, reach, bend, and lift up to 20 pounds. Employees are also required to read, write, interpret data, organize materials, make decisions, and solve problems.

These demands are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. This job description in no way states or implies that these are the only duties to be performed by an employee occupying this position. Employees may be required to perform other related duties as assigned, to ensure workload coverage. Employees are required to follow any other job-related instructions and to perform any other job-related duties requested by their supervisor. This job description does NOT constitute an employment agreement between the employer and employee, and is subject to change by the employer as the organizational needs and requirements of the job change. The job specification requirements stated are representative of minimum levels of knowledge, skills, and abilities to perform this job successfully.

### ***Approval Signatures:***

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General Manager – Ingersoll Production Systems

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Date

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Human Resources

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Date

The above description covers the most significant duties performed but does not exclude other occasional work assignments, requirements, or working procedures inherent in this job.