



Position: Sr. Controls Engineer II

Farris Automated Systems LLC is a supplier of custom automated assembly equipment for the automotive, heavy industrial, and general manufacturing industries. We offer complete turnkey systems from concept to installation. Farris Automated Systems employs engineers, machinists and assemblers in Mukwonago, WI. See our website at www.farrisautomation.com for more details.

Job Description:

Farris Automated Systems is looking for an experienced PLC programmer that is knowledgeable about Allen Bradley and other PLCs and HMIs. This position will require the programmer to write original programs for custom automated equipment. Additional responsibilities would be machine start up and debug, field service and upgrades, programming of robots, vision systems, leak tests, HMIs, databases and any other auxiliary equipment.

Requirements

- 5 years of motion control experience (servo)
- 5 years of Allen Bradley PLC or Siemens programming
 - RSlogix5000 and Studio for Panel View Plus
 - Step 7 and Profinet communications
 - CIP motion, Ultra Drives and Motion Control
- Manage 2-3 projects at the same time (multi-tasking)
- Database management
- Original PLC programming from scratch. NOT modifying code.
- Trouble shoot electrical wiring issues or bad components
- Less than 2 jobs in the last 5 years

Ideal Candidate will have 3 or more of these skills

- Creation of electrical schematics using AutoCAD electrical
- Specify hardware needed in a control cabinet for each machine
- Business sense and ability to make and meet budgets
- Knowledge of pneumatic and hydraulic controls
- Talent to trouble shoot machines mechanically and electrically for issues
- Robotics, vision, barcode, safety scanners, Servo motion

Standard work week

- Programming PLCs
 - Starting and commissioning PLC programs from scratch
 - Evaluating schematics for Inputs/Output and entering them into the code and HMIs
 - Evaluating all auxiliary hardware and creating an Ethernet network to communicate with the PLC
 - Commissioning and tuning in VFDs and Servo motors
 - Creating step logic for an automated machine
 - Setting up safety circuits
- Programming of touch screens
 - Manual IO displays
 - Error codes and trouble shooting screens
 - Display of safety status
 - Set up of part databases and final data reports
- Start up of machines
 - Trouble shooting wiring after power up
 - Commissioning safety and auxiliary equipment
 - Creating Ethernet IP communications between auxiliary equipment

The job will be non-repetitive in nature with 10-15 machines designed per year. The estimated job categories are:

- 70% Programming and Schematic generation
- 20% Hands on assembly, building and debug
- 10% Misc. – Installation and documentation

The estimated travel will be around 25%. Some weekend work and travel required.

Benefits:

- 2 weeks vacation, + holidays, + Flex Hours, comp time
- Job training on new technologies for current applications
- 401k, Health insurance, Life Insurance, Dental and Vision
- Relocation package available.
- Flexible work hours to fit family needs
- Some jobs can be work from office/home
- Positive work environment in a small company (25-30 employees)
- Being part of a growing company & industry

Interview Questions:

1. What does 'AOI' stand for in Studio 5000. (Add On Instruction)
2. A device uses 240 Watts at 120 volts, how many amps does it use? (2 Amps)
3. What are two common types of Analog signals (0-10 Volts or 4-20 Mil Amps)
4. What does 'CR40121' mean? (Control Relay, found on page 40, Line 121 of the schematics.)
5. What does a 'Safe off' circuit do? (Disables a motor or device when an E-stop is pressed)