

Title: Controls Engineer	Effective Date: August 4, 2005
Reports: Engineering Leader	FLSA: Exempt

Purpose

Electrical Controls Engineer to support the electronics side of machinery ...assembly lines, test stands, CNC machine controls, robotics, programmable controllers, pc based controls, real time computer systems and instrumentation.

Essential Duties and Responsibilities

- Troubleshoots equipment on the manufacturing shop floor as necessary to support production (CNC Machine & PLC Controls).
- Develops electrical specifications for custom engineered equipment such as assembly lines, test stands, automated material handling, conveyance devices, and robotics.
- Knowledge of current industrial electrical standards (NEC, NFPA 79).
- Must be proficient at programming all types of computer controlled devices commonly used in manufacturing processes (programmable controllers, robotics, "C", visual basic, CNC controls).
- Interface with other engineers to spec, quote, purchase, debug, run off, install, train operators, train skilled trades personnel and work with manufacturers of assembly and test systems, fixed and flexible automation systems used in high volume automotive manufacturing.
- Confers with management, engineering, maintenance, and other staff regarding manufacturing processes and specifically control devices used throughout the manufacturing operation.
- Develops specifications for machine tool controls, interfacing of various types machinery, develops specifications for data retrieval from various machinery used throughout the manufacturing process which produce drivetrain products.
- Develops control systems specifically focused toward the testing and data collection of drivetrain products
- Defines investment plans for future product designs, estimates costs for new plant processes(controls).
- Utilizes problem solving techniques (8 step, design of experiments, mistake proofing) Initiates, recommends or provides solutions through designated channels.
- Possesses a working knowledge of QS 9000 and or ISO process of certification.
- Must have experience designing controls from concept through build and installation in a high volume manufacturing operation.
- Capable of interfacing with product engineers to turn test specifications into machine controls and data collection for powertrain products.
- Familiarity with GE Fanuc CNC and Allen-Bradley PLC controls a must. Familiarity with Fanuc Robotics (programming and controls) is highly desirable.
- Working knowledge of Autocad for modifications of electrical drawings.
- Knowledge of manufacturing facility power distribution systems a plus.

Qualifications

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Education/Experience

Bachelors degree in engineering, engineering technology, or other technical degrees or significant related experience plus 5 years working experience working in high volume automotive tier 1 or tier 2 company. Excellent oral and written skills. Capable of interfacing with corporate staff, vendors, customers and employees. Having experience with plant start ups and major product launches is a plus.

Work Environment

CNC machining (turning, milling, drilling, tapping,, gear hobbing, grinding, shaving, spline rolling, heat treating, OD and ID grinding, laser and CD welding) automated material handling, robotics, assembly and test within a high volume 4 shift heavy manufacturing facility. Although the job is a day shift position, successful candidate must be willing to work any shift as required to support production requirements.

Physical Demands

Highly energetic and motivated individual wanting to work in a team oriented environment and be a significant contributor in a plant start up of high volume automotive products. The job will require more than the normal amount of setting, standing, and moving about the facility. Some travel required. Able to perform normal computer operations (spread sheets, email, project tracking, and presentations).

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HR Approval:	
Management:	Signature _____ Date _____

The statements included in this description are intended to reflect the general nature and level of work assigned to this classification and should not be interpreted as all inclusive.

	Never	Occasionally (0-30%)	Frequently (31-60%)	Continuously (61-100%)
LIFTING OR CARRYING:				
1-10 LBS			X	
11-20 LBS		X		
21-40 LBS	X			
41-60 LBS	X			
61 OR MORE LBS	X			
PUSHING OR PULLING:				
1-40 LBS		X		
41-60 LBS	X			
61 OR MORE LBS	X			
BENDING OR STOOPING		X		
REACHING ABOVE SHOULDER LEVEL		X		
DRIVING AUTOMATIC EQUIP. VEHICLES	X			
WORKING WITH MACHINERY			X	
CLIMBING	X			
WALKING			X	
STANDING			X	
SITTING			X	
WORKING IN EXTREME TEMPERATURES		X		