



Senior Systems Test Engineer

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Job ID: 2020-06A
Regular/Temp: Regular
Full-Time/Part-Time: Full-Time
Submit Reply and Resume to: CMEHR@custom-mfg-eng.com

MUST complete Predictive Index test before applying:

<https://assessment.predictiveindex.com/54R/4fd1bdb3-449d-430b-b8eb-223bacff764e?type=candidateba>

Job Summary:

Are you someone who has a passion for working toward enhancing the user's products and experience for the automotive, aerospace, military, heavy equipment or tech industries? We have an exciting and challenging opportunity in sunny Florida for the right person to become our Senior Systems Test Engineer. This position will oversee small cross functional product development team(s) as required to plan and complete electro-mechanical design requirements and design products through detailed schematics as well as documentation for manufacturability.

Duties and Responsibilities:

- Work daily with multi-discipline teams on new product design and continuous improvement of CME product electrical and electro-mechanical systems. Provides design/development oversight of engineering development projects for electro-mechanical systems utilizing technical engineering leadership
- Identify, initiate, and drive future technology initiatives within the electrical and electro-mechanical systems of all CME product areas
- Responsible for design success, test verification, prototyping and demonstrations to include all design verification and/or test validation methods for transfer to the manufacturing environment
- Responsible for development of detailed documentation packages including the execution of test plans and protocols
- Provides support for Manufacturing Process Development Engineering methodologies, standards, and relevant tests and/or certifications of electro-mechanical products
- Interfaces with Manufacturing personnel and customers as required (suppliers/subcontractors and technical professionals) to define and support production requirements
- Design and engineer power supply packaging, heat dissipation (thermal dynamics) applications, mechanical design aspects of printed circuit board mounting, interconnect and application of materials
- Develops thermal modeling, simulation and final testing and validation of product
- May be required to lead the development of product training material content for new or modified electro-mechanical products; and supervise the preparation and conduct of new product training for user/customer personnel in accordance with contract requirements
- Responsible for compliance with applicable Corporate and Divisional Policies and procedures
- Awareness of Industry 4.0 automation and interested in implementation of these modernizations
- Understands controls, panels, industry automation/robotics, power systems, cable assemblies, circuit card assemblies, buss requirements, etc.

Job Qualifications:

- Applicable, wide range of Industry Specifications (ASTM, IEEE, SAE, ASME, etc.)
- Design, assembly, integration and test of pressure/vacuum assemblies, hydraulics (pump, flow, motor, controller, pressure vessels, process/piping assembly integration)
- Fluid mechanics (flow of liquids and gases) experience and ability to perform simulations
- Design, assembly, integration/test of automated machinery
- Simulation tools for FEA, flow analysis, thermal modeling, structural integrity, etc.
- Data acquisition and data logging solutions
- Capable of producing "Class A" engineering documentation including BOMs, ECNs, ECRs, FMEAs, PPAPs, APQPs, etc.
- Configuration management and revision control
- Supply Chain support
- Military Grade specification of electronics and wiring
- System dynamic analysis, stress analysis, fatigue analysis, static test, vibration analysis and environmental test including vibration and shock
- Metrology or other instrument equipment diagnostics repair and calibration servicing requirement (electrical, mechanical, NDT)
- Understanding of metallurgy and corrosion, especially NDT flaws, thickness, corrosion detection
- Capable in Solidworks 3D

Minimum Requirements Needed:

- Bachelor degree in Mechanical, Electrical, Systems Engineering or Industrial design with a strong focus on design electro-mechanical control systems, pneumatic systems (pressure/vacuum), or automated machinery
- 6-10 years of industry experience in Electronics, Aerospace, Automotive, Heavy Equipment and Industrial Machinery, or Test Equipment
- Positions with CME require access to controlled goods and technologies subject to the International Traffic in Arms Regulations or the Export Administration Regulations. Applicants for these positions need to be "U.S. Persons," as defined in these regulations. Generally, a "U.S. Person" is a U.S. citizen, lawful permanent resident, or an individual who has been admitted as a refugee or granted asylum.
- Successful Passage of **Required Screenings & Tests: Background Check, Reference, Credit, and Drug Testing**

Position Detail:

The Sr. Electro-Mechanical Engineer will oversee small cross functional product development team(s) as required to plan and complete electro-mechanical design requirements. The candidate has proven capabilities to develop and integrate custom or specialty systems involving electrical, mechanical, and electronics instrumentation into commercial, automotive, military equipment, and/or industrial heavy equipment machinery. Work involves design development, prototyping, test verification, troubleshooting, and transition to manufacturing. Technical responsibilities include the development of integrated electro-mechanical assemblies that may include: custom electrical/pneumatic/hydraulic systems, automation machinery, pumps/motors/valves, ground support equipment, CCA's, Power Supplies, special test equipment (custom test stations and test sets, avionics test sets), mechanical assemblies such as enclosures, hardware components, and wiring harnesses. The candidate will work with little or no direction from other Lead Engineers. The candidate will interface with Manufacturing and R&D personnel to lead the design/development, prototyping, integration, and design verification testing of new products. At times, the candidate will be lead technical agent for Transition of new products into a new production line setup and its commissioning/qualification. Candidate will provide technical support to supply base, and assist in defining and developing solutions for low-cost approaches. Candidate

should have expertise in 2D/3D design tools for electro-mechanical requirements. Candidate will work our normal 4-day week and must be willing and able to work quick reaction hours as necessary.

Travel Percentage Required: Minimal & Usually Local to Vendors. 0% -5%

An award-winning Tampa Bay small business for two decades, Custom Manufacturing & Engineering, Inc. (CME®) delivers Engineering, manufacturing, test, and calibration/repair services to Government and Industry. Join us at CME, where one can "Use Our Expertise to Design & Build Your Solutions" CME's culture is embodied by Core Values that are focused on: Serving the customer while protecting CME, delivering quality products and services as required, solving problems, working with energy and passion, and encouraging and developing employees that challenge themselves.

As a strong supporter of Science, Technology, Engineering and Math (STEM) and other select charitable initiatives, CME promotes and encourages employee community support to nonprofit organizations or educational institutions, especially for mentoring and school/student support. Most of CME's products and services are focused on the development and manufacturing of energy efficient and sustainable products such as more efficient power supplies, intelligent power distribution units, energy saving solar panels, and other electronic systems, end products, or components. (www.custom-mfg-eng.com).

CME is an Equal Opportunity/Affirmative Action Employer. *All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, pregnancy, sexual orientation, gender identity, national origin, age, protected veteran status, or disability status.*

*As a U.S. defense contractor CME is also subject to additional rules and regulations regarding the hiring of foreign persons. **In compliance with U.S. federal law, all persons hired will be required to verify identity and eligibility to work in the United States; CME cannot accept any person for employment who does not meet employment eligibility requirements, E-Verify verification, and/or is in the U.S. under a student (F1 and/or OPT, J1, or M1) and/or temporary work visa.** For the purposes of clarification, the I-9 defines eligibility of an employee as a: U.S. citizen, permanent resident card or alien registration card (Form I-551), a person with a temporary I-551 stamp on their passport or U.S. immigrant visa, and/or passport from the Federated States of Micronesia (FSM) or Republic of the Marshall Islands (RMI) with Forms I-94 or I-94A indicating nonimmigrant admissions under Compact of Free Association between the U.S. and FSM or RMI.*

Removal Date: March 10th, 2021