



MECHANICAL DESIGN ENGINEER III

LOCATION: Shelbyville, Indiana

TYPE: Full-time

Come work at Capital Industries, Inc., a leading firm in our industry providing custom robotic and automation solutions, material handling and test systems, and contract manufacturing services.

Due to growth, we are looking to hire an experienced Mechanical Design Engineer III. If you are innovative and passionate about what you do, Capital Industries is an ideal place to work. Apply today!

JOB OVERVIEW

As a member of the Mechanical Engineering Team, you will work alongside our Project Managers, Controls Engineers, and Machine Builders to design and build custom automated equipment for manufacturers in multiple industries.

Job Responsibilities

- Analyze customer product engineering drawings and specifications to conceptualize and illustrate equipment, tooling, and process solutions
- Produce all required models and drawings using SolidWorks within the PDM design workflow and department procedures
- Develop overall process layouts for customer presentation and design review support as required
- Actively participate/contribute in group brainstorming sessions for process development concepts
- Support the mechanical design efforts on a complete machine, station or sub assembly level
- Organize/review documentation, including quotes, drawing registers, correspondence, requisitions, drawings, schedules, etc. on projects being led
- Generate advanced electrical requirements with respect to input and output devices and review with electrical designers
- Work in compliance with divisional health, safety and environmental procedures
- Identify areas of risk in proposed equipment customer's documentation/specifications and lead FMEA, problem solving or root cause events
- Report & summarize design team status to leadership, as required
- Lead and support the project team during debug and run-off efforts related to your designs
- Demonstrate strong written and oral communication abilities
- Able to independently complete all individual/departmental responsibilities with training and teach others
- Perform advanced complicated engineering calculations with respect to strength of materials, speeds, horsepower, temperature, pressure, force, etc. as related to machine and tool designs
- Analyzes engineering drawings, and specifications to determine shape, dimensions, hardness etc. in the development of equipment, processes and products
- Produces working drawings, detail drawings and bills of materials for equipment, sub-assemblies or product, using SolidWorks
- Produce designs and systems for compliance to applicable standards (i.e. OSHA, CE or customer specific)
- Accurately specify and recommend best choice of purchased components and create requisitions with appropriate delivery dates
- Regular contribution to the development of mechanical design and department standard processes
- Ensure that revision details are provided to the floor assembly documentation in a timely manner
- Check accuracy of the floor build documentation package and any assembly instructions, as needed
- Check and approve prints and PDM workflow gates for release as given authority to do so
- Produce complex pneumatic / fluid schematics using FluidDraw to document system

Job Competencies

- 10+ years direct design experience using SolidWorks or another similar 3D parametric CAD software package
- Proficient in MS Word & Excel
- Strong work ethic
- Exceptional interpersonal skills
- Strong written and verbal communication skills
- Advanced knowledge of drafting & fabrication principles
- Must be capable of designing mechanical components or systems from sketches or verbal concepts
- Must be capable of working as part of an integrated engineering team
- Must be capable of interfacing with others in a professional manner
- Advanced understanding of the use of standard automation hardware and control systems

- Continuous desire to learn and teach new skills and technology areas
- Possess advanced working knowledge of robots, PLC's, instrumentation or other machine controls packages, sensors and pneumatics
- Accountability to the project team/company to work effectively with colleagues to achieve agreed deadlines is essential

Education and Experience Requirements

- Required
 - Bachelor's degree in engineering discipline and 8+ years applicable work experience or 15+ years direct machine design experience.
- Preferred
 - Bachelor's / Master's Degree in engineering + 10 years of work experience in an applicable field

We are looking for candidates who -

- value reputation,
- are innovative,
- are passionate about what they do,
- embrace change, and
- are team players.