



## PROJECT ENGINEER

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 Project Engineer. 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, Electrical Engineers, Mechanical Design Engineers, and other internal departments to analyze engineering models for design manufacturability, lead and support project team during debug and runoff efforts, and perform related design work as required.

### Job Responsibilities

- Analyze complete and in-progress engineering models, drawings and specifications to assess for design for manufacturability, design for service, and design for robustness
- Verify, publish, and manage BOMs for completed designs
- Lead and support the project team during debug and run-off efforts
  - Liaise with mechanical engineering personnel to resolve issues as they arise
  - Identify lessons learned to prevent recurrence in future projects
- Support and advise mechanical engineers by providing direction and guidance during the design process
  - Perform project related design work as required
  - 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
- 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 ANSI Y14.5
- 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 + 8 years of applicable work experience or 15+ years of machine design / product 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.