



Mechanical Engineer

Job Description

Department:	200 - Engineering	Reports To:	Engineering Manager
Positions Supervised:	This job has no supervisory responsibilities.		
Travel Required:	10%	FLSA Status:	Exempt
Schedule:	M-F 8:30-5:30	Classification:	Full-Time
Last Revision Date:	8/22/2023	Location:	Oldsmar, FL

Job Summary

As a Mechanical Engineer, you own the development of high quality and innovative products from design concept to release for production. The position requires a self-driven, creative engineer to design products and drive development in a fast paced, friendly, and supportive team environment. The position requires a demonstrated capability of Mechanical Design, must have excellent team and project management skills, and have a strong sense of urgency in order to support product development and engineering efforts.

Duties and Responsibilities

The following are duties and responsibilities for the position. Other duties or functions may be performed as assigned.

- Planning and executing **product designs** using **Creo Parametric 3D modeling software**.
- Design products from initial concept or from modifications of existing designs.
- Design advanced **components and assemblies** manufactured via injection molding, die casting, machining, forming and stamping which may include electrical or electronic components.
- Prepare engineering assembly drawings, detail drawings, BOM's and sketches as required.
- Schedule and conduct engineering design reviews.
- Create renderings of concepts to demonstrate ideas.
- Use various 3D printing technologies and shop tools to create prototypes.
- Responsible for maintaining accurate design & drawing archives and revision history utilizing the **Windchill** product data management system.
- Setting up Project Plans, Gantt Charts and SOW's on a per project basis.
- Maintain project schedules and provide weekly reporting of project status.
- Manage changing priorities and deadlines with agility.
- Works with current suppliers to resolve engineering design issues.
- Oversee the development and manufacturing of physical prototypes for testing.
- Perform functional tests and root cause analysis for products, systems and equipment.
- Assists in determining methods or actions to remedy malfunctions.
- Detailing specifications for parts, testing and assembly.
- Documents and reports testing outcomes.
- Support Product Assurance group to create QA procedures and documentation for production.
- Assists in the design, construction, test, and validation of test equipment.
- Create customer facing documentation for sales support, renderings, Specification sheets, etc.
- Provide product training as required across company departments.
- Keep up to date on industry trends and competitive products.

Knowledge and Technical Skill Requirements

To perform this job successfully, an individual should have the following knowledge and skills:

- Design experience with plastic injection molding required.
- At least 3 years of experience with **CAD design** application (Creo Parametric).
- Design for manufacturability experience.
- Advanced knowledge of **injection molding, die casting, machining and metal forming processes**
- Be able to communicate effectively while working in a team environment.
- Must have advanced math skills and reading comprehension.
- Proficiency in the use of computers and application software (i.e. Microsoft Office Suites).
- Self-starter and "hands on".
- Strong analytical and problem-solving skills.
- Excellent communication and interpersonal skills.
- Exceptional time management and organizational skills.
- Ability to setup, maintain, and use 3D Printers
- Ability to troubleshoot 3D printers
- Basic Electronic theory.

Education and/or Experience

Bachelor's degree from a college or university in Mechanical Engineering or Equivalent; and 2+ years industry experience; or equivalent combination of education and experience.

Certificates, Licenses, Registrations

This position does not require certificates, licenses, or registrations; however, a certification of CAD proficiency would be beneficial.

Physical Demands

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. This position may require extended periods of standing, sitting, as well as some repetitive movements and repetitive lifting of minimal weight. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Work Environment

The work environment has a normal level of office sound. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Travel

Travel may be required to customer installations, or test sites, or other locations to support design efforts. Estimated travel 10%.

Supervisory Responsibilities

This position does not have supervisory responsibilities.

Vanguard Protex Global is a drug-free workplace.

Employee Name

Employee Signature

Date