

Job Description

Job Title: Mechanical / New Product Development Engineer
Department: Engineering Department
Location: 1275 Ensell Rd., Lake Zurich IL 60047

POSITION SUMMARY: The Mechanical / New Product Development Engineer will have a wide range of duties. He/she would interact and may direct fellow engineers and workers, speak with clients, manage the build/manufacture phases of a project, and act as a knowledge base. The Engineer will aid in the development of new product design, new product prototyping, managing engineering change requests, overseeing engineering production changes, performing detailed print and quality documentation (ECR's, PPAP, Quality Specifications), prefer candidates to have a manufacturing background and experience, with a focus on developing quality parts that fit within all safety standards. The Mechanical / New Product Development Engineer is expected to possess a comprehensive knowledge of the specific projects they are working on, whether that is manufacturing a part or a tower. (Salary will be based on experience)

ESSENTIAL DUTIES, RESPONSIBILITIES, AND REQUIREMENTS:

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- Develop and assist in the development of complete designs of products, subassemblies, and components from concept proficiently utilizing 3d Modeling Software (Solidworks, TopSolid)
- Design for Manufacturing.
- Concurrent management of multiple projects.
- Develop and evaluate design ideas based on aesthetics, human factors, usability, functionality, and durability.
- Prepare complete project documents and design files including production drawings, bill of materials, engineering change orders, schematics and assembly instructions.
- Prepare part drawings utilizing Geometric Dimensioning and Tolerancing, assembly drawings and other engineering specifications.
- Updating and maintaining the proper documentation and prints for all projects utilizing ERP system.
- Design more efficient fixtures and process handling components for in-house use.
- Develops, monitors and fulfills project timelines by working with Sales, Customer Service, Production, customers and outside sources.
- Ability to work with and provide clear and concise communication on projects and changes to all internal departments in a timely fashion.
- Apply principles of engineering and science to achieve exceptional product design.
- Have strong critical thinking skills and ability to solve challenging problems.
- Attend relevant internal and technical meetings and design reviews, as required.
- Ability to work self-directed.
- Reports and confers with Engineering Director on all Engineering related projects.
- Relies on extensive experience and judgment to plan and accomplish goals. Seek assistance from team members when needed.
- Proactively support changes in project work holding and good machining practices, identify risk, and support contingency and risk mitigation plans for accurate, repeatable results.
- Works closely and maintains open communication with other members of the engineering and

production teams.

- Use Global Shop ERP System to document actions by completing required documentation for all products.
- Maintains safe operations by keeping work area clean and organized and by adhering to safety procedures and regulations.
- Demonstrating work behaviors consistent with the company values and work within prescribed boundaries, including company policies, standards, and procedures..

Requirements of All Employees:

- Using your best efforts and full capability daily to the work assigned to you by your Manager.
- Advising your Manager if you do not understand the work assigned to you, or if the assignment does not fit with your knowledge of the circumstances, current skills or available time and resources.
- Advising your Manager of any situations or obstacles that could keep you from accomplishing the work assigned to you.
- Advising your Manager of any situations or opportunities that could help you complete or improve the work assigned to you in a better way.

QUALIFICATION REQUIREMENTS:

- Bachelor's degree in Mechanical Engineering from an accredited university.
- Project management and 1 to 3+ years of mechanical design engineering experience.
- Able to work independently and deliver on strict timelines with performance guarantees.
- Able to work as part of a team, think creatively and problem solve.
- Demonstrated experience with project planning and writing product and quality specifications.
- Experience with sourcing, selection, and application of a wide variety of mechanical components (e.g., materials, motion control, power transmission, etc.).
- Experience creating design documentation (e.g., theory of operation, 3D/2D CAD data, user manuals, etc.)
- Hands-on experience assembling and troubleshooting mechanical systems
- Hands-on knowledge with SolidWorks, CAD software program.

Competencies

- **Technical Skills** - Strives to continuously build knowledge and skills.
- **Oral Communication** - Listens and gets clarification.
- **Written Communication** - Writes clearly and informatively, Presents numerical data effectively; Able to read and interpret written information.
- **Teamwork** - Supports everyone's efforts to succeed.

Language Skills:

- Ability to read and speak English in order to comprehend and participate in safety, hazard communication, company meetings and continuous training.
- Ability to use and understand basic computer skills.
- Reliable transportation

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. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. All required PPE must be observed in all departments.

The table below illustrates the frequency and types of physical requirements for this job.

Physical Requirements	Frequency
required to lift/carry objects weighing less than 15 pounds	routinely (26% - 75%)
lift/carry objects weighing between 15 and 44 pounds	rarely (0% - 5%)
required to lift/carry objects weighing 45 pounds and over	routinely (26% - 75%)
stand	often (> 75%)
walk	routinely (26% - 75%)
Kneel or sit	rarely (0% - 5%)
climb	rarely (0% - 5%)
reach above the shoulders	rarely (0% - 5%)
use hands to finger, handle, or feel objects, tools or controls	routinely (75%)
Vision - close	often (> 75%)
Vision - distant	routinely (26% - 75%)
Vision – color perception	often 75%)
Repetitive Motion / Repetitive Work	routinely (26% - 75%)

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The table below illustrates the frequency and elements the work environment for this job.

Element	Frequency
Exposure to moving mechanical parts	often (> 75%)
Exposure to toxic or caustic chemicals	rarely (0% - 5%)
Risk of Electrical Shock	rarely (0% - 5%)
Nominal Noise Level	routinely <80 db
Peak/Occasional Noise Level	rarely >81 db