



Job Description

Job Title: Senior Mechanical Design Engineer – Technical Lead
Department: Design Engineering
Reports To: VP Design Engineering
FLSA: Exempt

Summary: Designs innovative, high performance mechanical and electromechanical products. This position will work on projects end-to-end – from proposal and concept development, engineering simulation analysis, through prototype development and analysis, to product development and manufacturing.

Essential Duties and Responsibilities include the following:

- Develops product design concepts that meet durability, performance, cost targets and other requirements as stipulated in the product requirements document.
- Creates 3D component and assembly designs of mechanical and electromechanical products.
- Researches and selects materials for use in design.
- Analyzes design concepts using FEA engineering simulation software and other analytic approaches.
- Leads design reviews and collaborates with manufacturing engineering, tooling and other functional departments to ensure designs are manufacturable (DFM).
- Prepares and maintains detailed product drawings and BOMs.
- Directs and/or coordinates building of prototype product to achieve proof-of-concept.
- Leads the product design verification and validation process in collaboration with the product testing team.
- Works with a multi-disciplined, technical team to launch the product design into manufacturing.
- This position will perform work on multiple development projects covering the range of the company's technology and product areas.
- Identifies, tests, and reports on new materials, manufacturing processes, and technologies that could benefit existing products or enable new product designs.
- Provides technical oversight and mentoring for mechanical designs within the New Product Development group to ensure new products are optimized for cost, performance, aesthetics, usability, reliability and time to market.
- Reviews and approves mechanical design prints.
- Promotes standard technical processes and best practices.
- Assists in coaching other Mechanical Engineers within the Engineering department.
- Other duties and responsibilities as assigned.

Education and/or Experience:

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

This position requires a Bachelor's or Master's degree in Engineering with at least fifteen years of related work experience or combination of education and experience.

Additional requirements:

- ❑ Design simulation experience, including finite element stress, vibration, thermal, and/or mold filling analysis. Experience with ANSYS engineering simulation software is preferred.
- ❑ Experience designing electronic device enclosures and/or electromechanical devices for rugged environments is desired.
- ❑ Experience designing one or more of the following: molded plastic components; stamped, cast, or extruded metal components, springs.
- ❑ 3D modeling/drafting experience (Siemens/Unigraphics NX preferred).
- ❑ Strong technical communication and project management skills.
- ❑ Experience in IP67 enclosure design.
- ❑ Experience with thermal management.
- ❑ Experienced with current GD&T practices.

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.

While performing the duties of this job, the employee is regularly required to sit and talk and/or hear. The employee is frequently required to use hands to finger, handle, or feel. The employee is occasionally required to stand and walk.

Work Environment:

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

While performing the duties of this job, the employee is frequently exposed to moving mechanical parts. The noise level in the work environment is usually moderate.