



## Mechanical Engineers

### Job Summary

At Emphysys, we push the boundaries of science, technology and innovation in the development of leading-edge products and solutions for clients in the life sciences, medical device and industrial markets. Using an applied research mindset, our scientists and engineers dedicate themselves to making new discoveries then testing and applying them to drive our clients' concepts further—all the way to market.

We are looking for experienced Mechanical Engineers who will plan and designs products with adherence to development procedures, policies and mechanical design standards to support the product development needs of our clients. In this role, you will work closely with clients, scientists, electrical engineers, mechanical engineers, embedded systems engineers, software engineers and technicians in a collaborative hands-on environment. You will be responsible for organizing highly complex activities for the design, development, implementation, and maintenance of engineering projects and then lead the development of those technologies into stable, functional, safe and manufacturable products. You will own the architecture, simulation, and implementation of integrated electro-mechanical designs.

### Core Responsibilities

- Lead engineering development activities through product development process using best engineering practices, FMEA and DFX (design for manufacturability, assembly, serviceability) techniques to ensure design robustness and conformance to specifications
- Create solid models and drawings with CAD using GD&T and stack-up analyses
- Hands-on design, analysis and the ability to apply analytical methods to ensure design quality
- Design, build and validate performance of prototype systems
- Estimate production times, staffing requirements, and related costs to provide cost estimates for current project, product and processes for management review
- Transition products from product development to contract manufacturers for production
- Provide reports and presentations to management as required
- Interface with clients as required
- Work closely with board layout designers to ensure design integrity
- Interface with purchasing and suppliers to ensure optimized component sourcing
- Conduct and document detailed root-cause analysis, and address corrective actions
- Debug new designs and develop reliability improvements for existing designs
- Collaborate frequently with mechanical, electrical, software and embedded engineers on system design, integration and testing
- Support and perform the field testing of new electro-mechanical systems
- Design and fabricate test equipment and determine methods, procedures and conditions for testing products

## Qualifications and Skills

- B.S. in Mechanical Engineering or equivalent experience
- Minimum of 8 years of related experience or Master's degree plus 5 years of related experience
- Proficient in SolidWorks
- Experience with Finite Element Analysis (ANSYS or equivalent)
- Experience in the design, development and testing of the following are preferred:
  - Semiconductor capital equipment
  - Industrial electronics
  - Real-time embedded control systems
  - Medical devices including adherence to 60601 standards
  - Laser systems
  - Medical handpieces and disposables
  - Plasma applicators including plasma containment systems
- Ability to prioritize and handle many diverse technical situations and action items simultaneously
- Enthusiasm, interest and willingness to gain knowledge and experience in the mechanical, electrical and systems engineering disciplines
- Regularly exercises independent judgment and discretion about matters of significance
- Hands-on disposition
- Willingness to apply needed focus and energy to accomplish project goals to meet project timelines
- Ability to travel domestically up to 10%
- Legally eligible to work in the U.S.