

RF and Electrical 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 RF and Electrical Engineers who will design, develop, and test new RF and electrical circuits 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 evaluating relevant technologies to solve applicationspecific problems and then lead the development of those technologies into stable, functional, safe and manufacturable products. You will own the architecture, simulation and implementation of RF and electrical system designs.

Core Responsibilities

- Lead the development of electronic products including system architecture and detailed circuit design/implementation
- Conceptualize, develop, design, and test electrical circuits, equipment, and systems to meet functional requirements
- Create RF and electrical circuit designs including component selection, schematic capture, modeling, firmware development, and analysis for customer products
- 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
- Lead the design, build, and test of electronic products and PCBs
- Troubleshoot circuits
- Debug new designs and develop reliability improvements for existing designs
- Provide reports and presentations to management
- Collaborate frequently and closely with mechanical, 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 control apparatus and equipment and determine methods, procedures and conditions for testing products
- Interface with clients as required



Qualifications and Skills

- B.S. in Electrical Engineering, Computer Engineering or Physics
- Minimum of 5 years of related experience or Master's degree plus 3 years of related experience
- Knowledge and experience in analog, power and embedded circuit design
- Demonstrated failure analysis experience
- Experience in design, repair, and analysis of electronic systems
- Experience with embedded microprocessor design and peripheral interfacing with sensor inputs
- Hands-on electrical circuit test and troubleshooting experience with analog, digital and mixed signal systems
- Proficiency in Altium schematic capture and layout software
- Extensive experience in the design, development and testing of a significant portion of the following specific systems is required:
 - RF power systems
 - DC switch-mode power systems
 - RF matching networks
 - Wireless power systems
 - Real-time embedded control systems
 - Medical devices, including adherence to 60601 standards
 - Laser systems
 - High voltage systems including design for creepage, clearance and corona
 - High current and/or high pulse power systems
 - Medical handpieces and disposables
 - Plasma applicators, including plasma containment systems
- Enthusiasm, interest, and willingness to gain knowledge and experience in the mechanical, embedded and systems engineering disciplines
- Hands-on disposition
- Regularly exercise independent judgment and discretion about matters of significance
- Willingness to apply needed focus and energy to accomplish project goals to meet the project timelines
- Ability to travel domestically up to 10%
- Legally eligible to work in the U.S

