



**At Miroculus our mission is to advance science
and improve lives, faster, together.**

Sr. Electrical Engineer

Miroculus is looking for a motivated, hands-on Senior Electrical Engineer who will work with and across the various disciplines of the engineering team. One of the primary functions of the position is to create and develop designs that meet product and customer specifications and requirements for our novel digital microfluidics platform.

About Miroculus

Miroculus uses proprietary digital microfluidics technology to automate and miniaturize the most complex genomic protocols such as NGS library prep, synthetic biology, cell editing, and combinatorial chemistry, in a compact, user-friendly system. Our vision is to make the most complex protocols easy and accessible to scientists everywhere.

Position Summary

- Leads the electrical segment of our products and produces work that meets all requirements within the allocated schedule and budget.
- Executes complex electrical designs and performs electrical subsystem bringup for projects.
- Provides technical support to Management, Mechanical, Firmware, Software, Science, and Manufacturing teams as needed.
- Evaluates, troubleshoots, and provides solutions for problems, issues, or challenges in the design that may affect performance, manufacturing, inspection, and assembly processes.



- Collaborates with external suppliers in acquiring information and requirements for new development or in working through problems, issues, or challenges.
- Complies with regulations and established company policies, procedures, and processes to ensure products and processes meet all requirements.
- Exercises initiative and judgement with data-driven decision making.
- Expected from time to time to put in extra time and effort to complete critical tasks to meet deadlines or objectives for the company.

Requirements:

- Bsc, or Msc. degree in Electrical Engineering.
- 5+ years of industry experience, medical device development a plus.
- Experience using Altium Designer and MATLAB for library creation, schematic design and layout, simulation, analysis, and automation.
- Design of schematic and layout experience, and know-how in debugging and root cause analysis of circuitry.
- Signal processing and digital filtering knowledge.
- Hands-on expertise with lab equipment (e.g., oscilloscope, power supplies, function generator, multimeter) and expert knowledge of soldering and other rework skills.
- Knowledge of feedback control systems, PID tuning, system identification and digital control implementation preferred.
- Knowledge in heat transfer (broad knowledge of thermal analysis, models and characteristics) is a plus.
- Knowledge of international electrical safety standards (e.g. IEC 61010).
- Experience and understanding of design and process failure mode and effect analysis (dFMEA / pFMEA).
- Familiarity with design control principles and experience managing design changes in a successful product development environment.
- Experience managing/leading engineering projects.
- Experience mentoring junior engineers.
- Experience effectively communicating with and collaborating on multidisciplinary teams.
- Meticulous attention to detail and excellent written and electronic recordkeeping skills.

Location: San Francisco, California



Applicants should send a cover letter and resume to jobs@miroculus.com.

Miroculus believes that diversity is a competitive advantage, that everyone has the ability to make an impact, and we are proud to be an equal opportunity employer committed to providing employment opportunity regardless of sex, race, creed, color, gender identity or expression, religion, marital status, domestic partner status, age, national origin or ancestry, physical or mental disability, medical condition, body size or shape, sexual orientation, pregnancy, military or veteran status, citizenship status, and genetic information.

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