

Electrical Design Engineer

Sydor Technologies LLC — Location: Rochester, New York

COMPANY OVERVIEW

Sydor Technologies is a global leader providing comprehensive, customized solutions for the most complex measurement challenges in the defense, energy, security and research industries. We pride ourselves on being a trusted, collaborative partner for our customers while solving technical problems with innovative solutions. Sydor's US-based operations specialize in high-speed imaging systems and diagnostics. The company's UK operations specialize in ballistic and impact testing systems, as well as scoring systems. The company operates in 33 countries around the world with its global headquarters being located in Rochester, NY.

Sydor Technologies is a high growth, small business, focused on growing organically as well as through strategic acquisitions. The company has been featured as one of the fastest growing companies in Rochester (NY) Top 100 and in the top 25% of Inc. Magazine's 5000 fastest growing companies nationwide. Our success is a testament to our employees and their commitment to customer focus, team work and high performance. Our employees are some of the best and the brightest in the industry and are the company's greatest asset.

POSITION SUMMARY

Sydor Technologies designs and builds diagnostic systems and instrumentation that support many pure science discoveries. Our customers range from university level to national laboratories, Departments of Energy, Defense and NASA. The Company is currently involved in several development projects that require an electrical engineer with experience in all areas of system design and development.

Sydor Technologies is looking for a motivated problem solver to join our engineering team. The successful candidate will take on design projects to build leading edge instruments that support science discoveries. The technologies we employ fuse analog and digital in a mixed signal environment integrating analog sensing, digital imaging, FPGAs, ARM microcontrollers, optical communications, custom ASIC electronics, high-voltage designs, and ultra-fast pulsed electronics. The work is tailored to individuals with strong interest in sensors and how to instrument, digitize, collect, and present the smallest details around them.

As part of a multi-disciplined team, our engineers are asked to bring their talents to all aspects of the design process and will find opportunities to work closely with software, mechanical and production teams. A typical day will involve design work and managing the engineering decisions against the project requirement then provide design testing, documentation and guidance to push the design into final production.

We work closely with research teams from across the world to help bring new concepts and prototypes into production. You will be expected to apply professional engineering principles to understand the concepts and designs that we choose to bring in-house and help elevate them to a fully commercial and user-friendly product. A successful candidate will be eager to review and question design choices and offer their inputs to fulfill the core requirements that will lead to a better product outcome. They will take a lead role in documenting the design that will include specifications, schematics, test procedures, and provide guidance as boards and design packages transition from engineering to final production.

Qualifications:

B.S. in Computer or Electrical Engineering with 5+ years of experience

M.S./PhD in Computer or Electrical Engineering with demonstrated project achievements

Required skills:

- Schematic capture in a full featured ECAD environment (OrCAD/Altium preferred)
- Knowledge of documentation for PCB contract manufacturing and assembly
- Experience with embedded firmware development in C
- Experience designing and debugging embedded interfaces (I2C/SPI)
- Experience with oscilloscopes and logic/protocol analyzers

Desired skills:

- Understanding of High Voltage DC and pulsed control circuits
- Experience with ECAD component database concepts (OrCAD CIS)
- High-speed differential or fiber connections
- Experience with high-speed FPGA design/layout
- Analog or mixed signal circuit design principles (Op-Amp circuits)

Bonus skills:

- Prototyping experience for PCB rework and assembly
- Knowledge of ARM base microcontroller architectures (STM32/NXP)
- Experience with source control systems (Perforce and Git)
- Layout experience for 6+ layers in a full featured ECAD environment (OrCAD/Altium preferred)

Accountabilities:

- Provide sound engineering solutions that meet technical requirements
- Effective communication with internal teams and vendors
- Manage project priorities to meet critical milestones
- Commitment to improving the team through new and improved capabilities/processes