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# Electrical Engineer I

## LOCATION

St. Louis, MO

## COMPENSATION

Competitive, commensurate with experience

## THE COMPANY

Impossible Sensing develops next-generation optical sensing applications for deployment and operation in the most extreme terrestrial and extraterrestrial environments. We strive to foster a creative, collaborative, and inclusive work environment that combines the best minds with the most innovative optoelectronics and data analytic technologies. We're looking for candidates to join our growing team (of full-time geniuses) in St. Louis, MO. We offer a competitive salary and benefits, commensurate with experience.

## THE POSITION

Design, build, and test cutting-edge electrical hardware for planetary and deep ocean exploration. The Electrical Engineer works with a multi-disciplinary team in product design, build, and testing of unique sensor systems. The Electrical Engineer works onsite with our team at the St. Louis, MO facility.

## SPECIFIC RESPONSIBILITIES

- Take space or deep ocean hardware and electrical requirements and desirements and translate those into a design for hardware that will fly on missions to explore the solar system or dive to the bottom of Earth's oceans
- Start-to-finish hardware ownership: Specification, architecture, design, simulation, schematic, PCB layout, prototype, manufacturing or outsourcing of circuit boards, validation, and verification of requirements
- Collaborate with firmware, reliability, program management, mechanical, and EMC teams
- Thoroughly document design requirements, calculations, power budgets, validation results, etc
- Rapidly iterate as design requirements and vehicle features mature over time

## REQUIRED WORK EXPERIENCE

- 2+ years design experience
- 2+ years ECAD tools experience (Altium preferred, but not required)
- Requirements and architecture development
- Design, simulation, build, and prototype testing of electrical components
- Verification and Validation testing
- Strong understanding of:
  - 1) Analog & digital circuits
  - 2) Component selection
- Exceptional organization/documentation and communication skills (both written and verbal)
- Ability to independently identify issues and collectively work out a solution
- Proficiency with lab equipment (oscilloscopes, electronic loads, signal generators, etc)

## DESIRED WORK EXPERIENCE

- Basic programming ability (Python, C, C++, Java, etc)
- Knowledge of aerospace design requirements
- Design for extreme environment systems (Deep Ocean or Deep Space)
- Start-Up Mentality with rigor of established large-scale business practices
- Analog & digital circuits - experience designing custom analog front ends and High-Speed digital interfaces like USB3, Ethernet, LVDS
- Power dissipation, thermal management, etc
- Embedded software design experience (MCU/FPGA)

## CANDIDATE REQUIREMENTS

- B Sci or higher in related field
- 2+ years relevant EE experience
- Ability to reliably commute to the STL job location
- US Person (Citizen or Permanent Resident)

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# IMPOSSIBLE



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## JOIN OUR TEAM

### OUR MISSION

Impossible Sensing develops next-generation optical sensing applications for deployment and operation in the most extreme terrestrial and extraterrestrial environments. Through our cutting-edge adaptive technologies, we make sense of deep ocean, deep space, and everywhere in between.

### OUR TEAM

We strive to foster a creative, collaborative and inclusive work environment that combines the best minds with the most innovative optoelectronics and data analytic technologies. We look for candidates who are interested in projects ranging from planetary exploration to deep ocean survey to join our growing team of full-time innovators.



### WHY ST LOUIS

Impossible Sensing's 25,000sq' World Headquarters is located in St. Louis, MO. A city with a rich space industry heritage, St. Louis is full of world-class talent, booming space, agriculture & biotech industries – and more opportunities for us to take the creative risks we couldn't take in bigger, more expensive cities. We are over the moon to call this mid-sized-but-mighty Midwestern city home.

### BENEFITS

We offer comprehensive health, dental and vision at no cost to our employees, 4 weeks paid vacation to start, paid holidays, paid parental leave, and a flexible schedule including WFH options. We believe in empowering our teammates and we proactively invest time and energy into creating opportunities for employees to learn and grow as professionals and as individuals.

