| Job title | Electrical Engineer  |
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| Field     | Scientific Instrumentation, Analytical Instruments, X-Ray Fluorescence,<br>X-Ray Imaging, Medical Imaging, Physics |

# Job purpose

To plan and execute electrical designs for economy, quality, reliability, safety and sustainability for innovative and advanced scientific instruments and devices. Designs must account for electrical, mechanical, and software aspects of the instrument and must developed with CAD documentation throughout the development process.

# **Duties and responsibilities**

- Development of Scientific Instruments and Devices
- Execution of Electrical Design Principles for Instrument Development
- Reporting of Data
- Management of Projects
- Searching, Reviewing, and Evaluating electrical designs

# Qualifications

#### Preferred:

- Bachelor's degree in Engineering or engineering technology
- Must be able to translate project needs into the design of the instrument
- Strong aptitude in math and physics
- Strong Communication Skills
- Excellent problem solving skills
- Ability to think outside the box
- Excellent Engineering reading and writing Skills
- Use of related hardware and software such as PSpice, Labview, Oscilloscopes, C++, FPGA. PIC, PLC, MATLAB
- Hands on Experience building circuits, assembling hardwares, design of scientific apparatuses
- Experience with designing commercial or industrial products
- Diligence in Engineering Design Principles, Commitment to meeting deadlines

# Working conditions

Working in an SBIR environment, the Engineer will work within teams in a hands-on environment to meet the project requirements.

### Physical requirements

The execution of work begins in team meetings where the projects needs are discussed, the engineer then translates these needs to electrical designs, builds and assembles the required circuits and then ensures that the designs fulfill the project needs.

# **Direct reports**

Report to the President of the Company.