**XII Medical**

**Job Title:** Co-op Engineer

**Department:** Research and Development

**Status:** Non-exempt, 40hrs/week

**Location:** Cleveland, OH

**Travel Requirements:** None

**Summary:**

XII Medical is a startup company developing a next generation implantable hypoglossal nerve stimulation system for the treatment of obstructive sleep apnea. The next generation system aims to reduce the invasiveness of the therapy and increase patient compliance by reducing surgical invasiveness and improve the patients’ sleeping habits.

The Co-op Engineer will be involved in many aspects of the product development life cycle: writing test protocols, writing test software (python and C), software testing, verification testing on prototype hardware, and documentation. The candidate will participate in hardware and software design reviews and have the opportunity to get further involved with the hardware and software development team. The candidate will be mentored by a senior engineer. Experience in microprocessors, embedded operating systems, wireless technologies such as Bluetooth, and data acquisition is desirable.

**Essential Functions:**

Key responsibilities may include, but are not limited to:

* Writing Test Software in Python for testing a complex hardware electronic system using off-the-shelf test equipment such as DMMs and oscilloscopes.
* Writing Software functions in a well-documented, modular style with debug capability and proper error handling
* Participate in the development of system architecture and detailed electrical design
* Documentation of Software requirements and architecture, block diagramming of code
* Troubleshooting with logic analyzers, oscilloscopes, microprocessor debuggers, communication protocol analyzers, with guidance from a senior engineer
* Building and testing prototype hardware and test fixtures
* Collaborate effectively with other engineers to assist in prototype production and testing efforts.

**Education and Skills**

* Working towards a Bachelor’s Degree in Biomedical Engineering, Electrical/Software Engineering or Computer Science.
* Experience should include use of Python, BASH, or similar interpreted language
* Experience or course work with C programming language
* Desire to learn FDA product/testing requirements Involvement with medical device regulatory standards
* Some experience in electrical circuit troubleshooting using test equipment such as oscilloscopes and DMMs
* Excellent IT/computer skills and a willingness to learn new tools as they become relevant
* Good organizational and multi-tasking skills as well as strong written and verbal communication skills
* Flexibility and ability to self-start on new challenges, problem-solving
* Strong analytical skills and willingness to develop understanding of relevant concepts in medicine and mechanical, electrical, and materials engineering