



**Position:** Co-Op Intern, Electrical Engineering  
**Company:** Paradigm of New York; Rochester, NY

### **Position Summary**

We seek an energetic Electrical Engineering Co-Op student to work with Paradigm's engineers to design, build and test novel electrical non-thermal plasma emissions control systems requiring electrical, thermal and mechanical engineering. The system utilizes a high voltage power source and a plasma reactor to convert carbon soot emissions through ionization and oxidation processes. The goal is to provide a reliable flow of power to the plasma reactor with the capability to process the emissions at a wide range of temperatures and volumes resulting in a high conversion rate of the carbon soot. The easily scalable system design comprises a high voltage power supply, system controller, high voltage cabling, a cylindrical reactor with a high voltage pass-thru and high dielectric insulators. The Co-Op student may be involved in all aspects of embedded systems development, including requirements analysis, design, coding, manufacturing, installation, testing, maintenance, and documentation. The successful candidate will work with a team of engineers and technicians both in-house and contracted as well as Paradigm suppliers and automotive industry customers.

### **Essential Functions**

- Enhance embedded software solutions for controlling emissions equipment in a real-time operating system environment.
- Working with a lead Engineer, develop software, test plans, and lab procedures.
- Assist in the setup/configuration of equipment and test platform.
- Assist in manufacturing, installation, and support of equipment.
- Develop test and production code, deliver to test platform, conduct testing, maintain test documentation, gather and analyze data, and prepare lab reports.

### **Minimum Qualifications**

- College Junior level or above; studying electrical engineering, computer science, computer engineering at an accredited 4-year college or university.
- Must have a minimum cumulative GPA of 3.0.

### **Technical Skills**

- Demonstrated experience designing and building systems.
- Knowledge and experience with data acquisition systems.
- Knowledge and experience with embedded software design and implementation.
- Experience with C++ and development environment.
- Understanding of circuit theory and digital logic.
- Demonstrated organizational, planning, and prioritization skills.
- Ability to work well in a team environment. Work within design parameters.
- Comfortable exploring work tasks, seeking out answers, and working independently when necessary.
- Track record of strong interpersonal, oral, and written communication/briefing skills.
- Experience with automotive control systems technology a plus.

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