



JOB TITLE: Electrical Engineer		Position Type: Exempt
COMPANY: Cypress Inline Inspection, LLC ("Cypress")		DEPARTMENT: Engineering
REPORTS TO: Vice-President / General Manager	Location: Salt Lake City, UT	Compensation: Market depending upon experience and skills

GENERAL SUMMARY

Cypress is a young, next generation environmental services company that is focused on building state of the art tools, technology, and data analysis. Cypress has been building upon the original company's founder and Stanford University PhD's and professor's technology. As part of a multi-discipline team, EE will design and develop electrical circuit and system layouts for 5G inline inspection ("ILI") tools and systems. These ultra-high-resolution tools are also known as "smart pigs" or "pipeline inspection gadgets") that are designed to provide high resolution images of pipelines to assist the owners in protecting property, people, and the environment. These ILI tools are complex and utilized to inspect both municipal water pipelines that transport precious drinking water, and energy pipelines that transport various products including gasoline, diesel, jet fuel, crude oil, natural gas, natural gas liquids, and other products routinely transferred via underground pipelines. ILI of pipeline is similar to MRI's in health care. Our technology utilizes Magnetic Flux Leakage ("MFL") technology. We work for some of the most prestigious municipal water authorities, and energy pipeline companies in the world including City of San Francisco, Jordan Valley, North Jersey Water Supply commission, Washington County Water, Travis Air Force Base, MacDill Air Force Base, City of Denver, Chevron, DCP Midstream, Plains All America Pipeline, Phillips 66, etc. EE candidate will also design and build proprietary electronics assemblies used in the construction of the company's ILI tools and support equipment.

- PRINCIPAL DUTIES & RESPONSIBILITIES (other duties may be assigned)**
- Specific duties will depend on priorities, but may include:
1. Collaborate with electronics, mechanical, software, and other personnel in the design, manufacture, and implementation of microcontroller-based embedded systems for the company's ILI tool fleet.
 2. Design and layout circuit boards utilizing the Altium CAD package.
 3. Develop knowledge about firmware concepts and work with developers to meet product requirements and specifications
 4. Simulate, design, and optimize electrical circuits to ensure robust designs are produced.
 5. Debug, test, and optimize hardware and software designs on bench and in operational conditions
 6. Brainstorm and troubleshoot electronics issues with new designs as well as in existing company tool fleet.
 7. Assist in the selection of electronic parts, and vendors
 8. Perform QA/QC on incoming manufactured boards
 9. Prepare documentation and support material for all designs produced
 10. Understand and improve upon our quality policy, quality systems manual, operating and technical procedures, and workplace instructions

11. Promote Environmental, Health & Safety and always follow safe working practices
12. Represent Company with high moral standards while adhering to the Company's "Code of Business Conduct and Ethics."
13. Actively support the Company's commitment its Core Values, including safety leadership, equal employment opportunity, employee development, and operational excellence
14. Assist in assembly of electronics in ILI Tools
15. Other duties as assigned from time to time by leadership.

KNOWLEDGE, SKILLS & ABILITIES

- Bachelor of Engineering – Electrical, Computer or equivalent discipline preferred
- PCB design using CAD software – preferably Altium (practical industry-related experience)
- Digital and analog circuit design
- Experience working with third-party manufacturers and sourcing parts
- Circuit board prototyping ability (component soldering)
- Hardware test and debug experience with Oscilloscope and bench equipment
- Ability to quickly and independently learn new design technologies and skills
- Creativity and problem solving
- Teamwork and strong verbal and written communication skills
- Software programming ability is not required but encouraged.
- Embedded C with real-time operating systems
- C++, Python, JavaScript, SQL, MATLAB
- Experience using SVN version control

WORKING CONDITIONS

Office environment may include prolonged sitting and repetitive computer use

PHYSICAL DEMANDS

Duties involve sitting, standing, walking, and bending. Work normally requires reaching in all directions, seeing and hearing with or without correction, applying intermediate mathematical skills, writing, and proficient computer keyboard skills. Work may require extended hours to ensure project scope is met. Work may require travel to job sites from time to time to learn about field operations.

WORKING RELATIONSHIPS/CONTACTS

Internal - Frequent contact with other employees, departments, managers, and executives
External - Regular contact with clients and vendors

EQUAL OPPORTUNITY EMPLOYER

Cypress is an equal opportunity employer committed to diversity and inclusion. All qualified applicants will receive consideration for employment without regard to race, color, sex, pregnancy, sexual orientation, age, religion, creed, national origin, gender identity, disability, military/veteran status, genetic information or any other categories protected by applicable law.