Electronics Engineer

Location:

62 Littleworth Rd, Dover, NH 03820 USA

Summary:

iWorx Systems is a small company with a dedicated team of engineers looking for a new member. The most valuable characteristics in our team is a natural curiosity and passion for our work. We design and produce physiology acquisition systems used by researchers and universities. We are always looking to push the boundaries of the current capability of our equipment which means there is never a shortage of interesting projects. The work load is engaging while remaining completely manageable, with a supervisor who is an engineer and understands the flexibility and adaptability needed when handling a complex projects with many unknowns.

Having the humility to learn and understand your weaknesses, and an inherent interest in your work are the necessary components to succeed at iWorx. You should be able to think creatively and apply your knowledge of electrical technologies and techniques to come up with novel solutions to problems you encounter in your designs. If you are faced with a frustrating problem, there will always be another team member available to help. There is a freeing degree of autonomy allowed within the engineering team at iWorx and it is expected that when a team member is stuck on a problem, they will call attention to it by requesting a brainstorm with other engineers. You are expected to be your own supervisor.

As an Electronics Engineer at iWorx you will be responsible for designing and overseeing every aspect of your projects. If all this excites you and you enjoy challenging yourself and pioneering new systems while utilizing emerging technologies, you are strongly encouraged to apply.

Job Description

You will utilize a variety of tools and manufacturing techniques when designing and developing products. You are not expected to be familiar with how to use all these tools, but you should be ready to learn them. Some tools and techniques we use for manufacturing enclosures are CNCs, 3D printers, and molding. CAD is used to generate enclosure models that are needed for each of these types of manufacturing. Familiarity with CAD is a strong plus.

To accomplish the design tasks in this job you will need proficiency in mixed signal circuit design. Most of the job will be designing schematics and PCBs, but will expand to designing enclosures and writing firmware as you become comfortable in these fields. You are expected to become proficient in CAD at your own rate, to allow you to design the enclosures for the PCBs you design. Experience with writing firmware is a plus, but a willingness to learn is all that is required.

You will be required to document your work so it can be effectively reproduced in production and will be responsible for writing all test and assembly documentation required for the test and assembly teams to produce your projects. You will be expected to assist and correct any technical issues the assembly or test teams are having in production. Having a basic knowledge and familiarity with hardware test methodology is required. You should have an understanding of how the tolerances of circuit components interact in analog circuits to produce a final tolerable input or output range that can be tested.

The types of circuits we design are typically composed of an analog front-end that amplifies a signal from a sensor, an ADC to digitize this information, and a microcontroller to transmit the data to our acquisition software. You should have familiarity with basic circuit typologies to support this functionality.

If you are accepted as viable candidate and scheduled for an in-person interview, you are strongly encouraged to bring at least one of the products of your past engineering projects. You should be able to explain your design process and the difficulties you encountered with the project. You don't need to have a physical product, but you should be prepared with images or some means of communicating your work. **In your resume or cover letter, please indicate if you have any related projects that you've worked on that can be presented at an in-person interview.** Describe the project and design process in as much detail as is practical in your cover letter.

Basic Qualifications

•HS diploma with 3+ years of relevant experience or BA/BS degree in business, engineering, or related discipline

•Candidates must be able to demonstrate their ability with presentable engineering projects they've worked on. If you have projects that you have worked on in your own time, I am willing to consider the time you spent on these toward the minimum 3 years of relevant

experience if you do not have a BA/BS degree. You should be able to produce evidence of your work and explain your thought process in your cover letter.

•A willingness to learn and participate in a team

•Experience using PCB board layout and design software

•Knowledge of hardware test practices

•Comprehensive understanding of circuit design

Preferred Qualifications

•Experience with CAD software, specifically FreeCAD

•Experience with DipTrace software

•Experience writing embedded firmware in C and using the Eclipse and MPLAB IDEs

•Experience with 3D printing and CNC manufacturing.

NOTE: If you do not have experience in any of the preferred qualifications, don't let this discourage you from applying! All that is required is a willingness to learn these skills.

Send your resume to info@iworx.com