Embedded Hardware Engineer

If making an impact is rewarding to you, then come join one of the fastest-growing technology companies in the Chicago area. At UICO, you will find yourself in a stimulating and rewarding work environment with considerable growth potential. As an Embedded Hardware Engineer at UICO, you will be the subject matter expert in touch technologies for UICO duraTOUCH® touchscreens and touch surfaces. You will work in a multidisciplinary team to identify technical solutions to all customer challenges. You will need to be a self-motivated top performer ready to work in the dynamic and demanding environment of a rapidly growing small company. Applicants with industrial, medical, and consumer electronics technical customer-facing experience are highly desired.

Job Functions:

- Design touch controller FPCs and PCBs including schematic design and layout
- Embedded Hardware development including microcontroller systems, communications, analog signals, and power regulation
- Create and maintain BOMs for components and alternates for production assemblies
- Create Gerber file packages and ECN documentation for DFM and production release
- Review all designs for manufacturability with our factories based on process/material capabilities
- Administer internal and external environmental and EMI qualification testing as needed and create test reports
- Create custom cable drawings
- Develop embedded firmware ranging from low-level peripheral drivers to touch algorithms to optimize touch performance
- Develop hardware and firmware for custom demos and fixtures
- Perform touchscreen tuning to meet the customer specifications and requirements
- Support manufacturing and sales team as needed and provide technical support for customers
- Support customer product integration reviews from an electrical design perspective

Required Skills & Experience:

- Bachelor's Degree in Electrical Engineering, Computer Engineering, or equivalent
- 3+ years of experience in new product development of embedded systems
- Experience with OrCAD or other schematic capture and PCB layout software
- Experience in analog and/or mixed-signal hardware design and PCB layout
- Expertise with measurement and test equipment
- Experience testing, troubleshooting, and/or solving ESD/RF/EMI/SNR issues
- Familiar with serial communication hardware: I2C, UART, USB
- Competent in soldering and reworking fine-pitch components (0402 and above), or be willing to learn
- Experience developing bare-metal firmware on ARM Cortex M or similar microcontrollers
- Experience developing firmware in C/C++ and basic understanding of assembly
- Experience writing specifications, design documents, test reports, failure analysis reports, and user documentation
- Excellent verbal and written communication skills
- Comfortable interfacing with customers and representing the company as the technical subject-matter-expert
- Detail oriented with strong problem solving and troubleshooting skills
- Some travel is required (up to 10%, mostly domestic)

Desired Skills & Experience:

- Experience reading 2D and 3D mechanical CAD design files
- Knowledgeable in power conditioning and designing a system for low power consumption
- Experience with LCD Displays, Drivers, Backlight Inverters, and cabling
- Proficiency in modeling, data collection, data analysis, and statistical analysis tools (e.g. Matlab, Python, R)
- Experience troubleshooting firmware-related issues with the aid of debuggers, oscilloscopes, and logic analyzers
- Familiarity with source control systems, especially Git