HARDWARE ENGINEER

Position Description:

Guard-Ex is developing a state-of-the-art impairment detection device. The engineers here at Guard-Ex will be responsible for the hardware configuration of the device. You will be continuously updating the device by improving the components, layout and design increased efficiency, speed and function. The engineers will be given the resources, advisory support and flexibility to design the most compact and cost-effective model possible. Once the prototypes are solidified, these engineers will spend much of their time studying existing models in order to detect flaws and inconsistencies as well as pinpoint areas of improvement. They use their technical and applied mathematical skills for troubleshooting. Based on their findings, as well as their creative abilities, they will then devise more advanced computing systems.

Innovative and Dynamic - No Cubicles here!

Key Responsibilities:

1) Electrical/Mechanical Engineering Skills
   - Construct and improved the integrated eye scanner system with two IR cameras, IR LEDs, physiological monitoring sensors and other electronic components.
   - Configure and optimize a heart rate sensor, brain wave sensor, body temperature and muscle tone sensor.
   - Improve the efficiency of current hardware which involves single board computers and microprocessors.
   - Consolidate PCB design into most effective Integrated Circuit Board
   - Proficient in Digital Electronic Design & Industrial Design.
   - Designing, developing, debugging, and troubleshooting of analog/digital/mixed-signal circuitry.
   - Familiarity with documenting test procedures and test reports.
   - Compile timely, comprehensive and accurate documentation and or reports as requested

Must Have:

1) Academic Qualifications - Experience listed below would be obtained through a combination of your school work/classes/research and/or relevant previous job and/or internship experiences.
   - Bachelor's degree in Electrical/Computer Engineering, Computer science or equivalent.

2) Engineering Skills
   - Certified in 3D Printing & Laser Cutting Technology.
   - Proficient in Digital Electronic Design & Industrial Design.
   - 3+ years of experience debugging and connecting boards such as the Raspberry Pi, Tinker Board, Odroid with micro-controllers (i.e. Arduino), analog sensors, motor-operated parts and LED/IR lights.
   - Proficiency in Embedded Micro-Computer and Micro-Controller analysis and development, practical experience in open source platforms which are Arduino, Beagle boneblack, Raspberry Pi.
   - Solid knowledge in electronic circuit design and development of embedded systems.
   - Experience with Orcad (Capture, PSpice, and PCB Designer), Altium, Eagle, Mentor Graphics, or similar tools would be an asset;

3) Organizational Culture Asymmetry
   - Have a great attitude and are proven self-starters.
   - Willing to learn new technologies.
   - Thrive and ability to function in a rapidly changing environment.
   - Results oriented and deadline driven.

4) Communication & Collaborative Skills
   - Excellent verbal and written communication skills.
   - Driving innovation
   - Continious Integration

If you like thrive on always finding new ways to grow as a company - we want to hear from you.