

# Hardware Design Engineer II

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Reports to: Software Engineering Lead / Manager

Division: JAC

Classification: Exempt

Department: Software Engineering

Date: 11/2018

Approved:

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## JOB SUMMARY

Position requires thorough knowledge of electrical design, firmware design, and engineering techniques. Create and modify schematic diagrams, PCB drawings, and firmware from inception to release. Design hardware to meet gaming standards and worldwide regulatory compliance. Work with cross-functional teams to resolve hardware and firmware issues for various products. Be able to work independently, as well as in a team environment.

## ESSENTIAL FUNCTIONS

- Create and modify electrical drawings and specifications.
- Create and modify electrical designs for harnessing, circuit board, power supplies, and communication protocols (TTL, RS-232, USB, TCP/IP, etc.)
- Create and troubleshoot applications and firmware in Assembly, C, C++, C#, etc.
- Create, maintain and review engineering documents.
- Create new products and modify existing products to meet customer needs and company standards.
- Ensure design and development meet company standards and regulatory compliance.
- Work with other Engineers to design, implement, integrate and debug both hardware and firmware.
- Work with Product Managers to create new product requirements and specifications.
- Other duties as assigned.

## REQUIREMENTS

- Experience in complex electrical board design with successful release to production.
- Experience in firmware development for microcontroller or microprocessor based products.
- Experience with embedded RTOS such as ThreadX and FreeRTOS.
- Experience with using oscilloscopes, USB analyzers and JTAG debuggers.
- Experience with designing and developing in Windows OS.
- Basic understanding of version control systems such as Subversion and Mercurial.
- Must be able to obtain and maintain a passport/travel documents.

## QUALIFICATIONS

- Strong analytic and communication skills.
- Ability to write concise presentation/report of findings.
- Ability to travel to domestic and overseas facilities as needed.
- Knowledgeable in modern fabrication and assembly techniques.
- Understand interdepartmental functions and cross-functional team approach to development.
- Originality and initiative are important as well as the ability to solve problems under pressure.
- Fluent in English both verbal and written. Japanese language skill a plus.
- Experience with currency handling, Electronic Gaming Machine, or Point-of-Sale design is a plus.

## EDUCATION AND EXPERIENCE

- Bachelor's Degree in Electrical Engineering or related field.
- 5+ years of relevant work experience.

**PHYSICAL DEMANDS:** The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of the job typically the employee may sit comfortably to do the work. However, there may be some walking, standing, bending, carrying of light items such as papers, books, small parts; etc. No special demands are required to perform the work.