

STUART FUNG

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Exploratory and proactive mechanical engineer with 2 years of experience, in the product development lifecycle of electro-mechanical systems. Skilled in using CAD software, designing products for manufacturing, and conducting reliability testing.

EDUCATION

UNIVERSITY OF MASSACHUSETTS LOWELL

December 2023

Bachelor of Science in *Mechanical Engineering*

GPA: 3.72

RELEVANT COURSEWORKS: Design of Machine Elements, Applied Finite Element Analysis, Control of Automated Systems, Dynamic Systems Analysis, Design Theory and Constraints

PROFESSIONAL EXPERIENCE

WITRICITY

Watertown, MA

Mechanical Engineer

May 2023-Present

- Participated in all phases of a product release, including initial design, engineering validation, design validation, production validation and cost reduction
- Designed, engineered, and tested the electro-mechanical assembly for a wireless charging system to be integrated into electric vehicles
- Redesigned the top cover of the ground pad, increasing the load capacity by 150%, and validated the design through finite element analysis (FEA) simulations
- Researched plastic materials with high heat deflection temperature to better withstand environmental stresses
- Determined signal and power connectors that meet the mechanical and electrical product requirements, offering increased robustness, satisfying customer needs, and passing IP testing
- Developed designs for manufacturing processes, including injection molding, die casting, sheet metal fabrication, and die cutting
- Performed reliability testing to ensure system met durability and regulatory standards
- Improved the manufacturing process by creating documentation, supporting setup of production lines with manufacturers, and implementing design improvements.
- Collaborated with cross-functional teams, including electrical, firmware, and materials engineering, and partnered with OEMs to design products for seamless system integration

SYMETRICA INC.

Westford, MA

Mechanical Engineering Intern

January 2022-April 2023

- Created fixtures to perform drop and waterproof testing in compliance with IP66 and MIL-STD-810 standards
- Trained in the safe use of radioactive sources
- Fabricated metal bracketry to safely store fragile Cesium-137 gamma detectors
- Constructed multiple prototypes for handheld radiation detectors including assembly, wiring, and water sealing

SINGAPORE ARMED FORCES

Nee Soon Camp, Yishun, Singapore

Signal Operator

September 2017 to August 2019

- Maintained and supported radio systems, equipment, vehicles, power generators, and computer systems
- Led a platoon of 16 in daily exercises, drills, and expeditions
- Earned recognition as “Best Tenacity Team” in a base-wide radio equipment competition

SKILLS

Laboratory: 3D Printing, FEA, Laser Cutting, CNC Machinery, Instron, Soldering

Software: Solidworks Design, Product Data Management (PDM)

Certifications: Solidworks CSWA, OSHA 30 Industry

Other: Product Design, GD&T, Prototyping, Manufacturing, Test and Validation, Technical Documentation, Vendor Management