

Erick Tan

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EDUCATION

Singapore University of Technology and Design (SUTD)

Singapore

Aug 2021 to Present

- Bachelor of Engineering (Product Development), Second Class (Upper) Honours
- SUTD Global Merit Scholarship
- Expected Date of Graduation: May 2025

WORK EXPERIENCES

Shanghai Zhiliang Optoelectronics Technology Co. Ltd, R&D Intern

Shanghai, China

May 2024 to July 2024

Specialised manufacturer focusing on R&D, and production of optoelectronic components

- Developed Modular Dichroic Mirror Mount:
 - Created a device that streamlines the insertion and alignment of dichroic mirrors in optical systems.
 - Used SolidWorks to model designs for faster insertion & automatic alignment features
 - Reduced mirror replacement & swapping out times by up to 2 minutes
- Miniaturised Linear Motor Stage Designs:
 - Redesigned linear motor stages to reduce their overall footprint and improve compactness.
 - Used SolidWorks to optimise the mechanical layout and component selection.
 - Achieved a 30% reduction in form factor, enabling more efficient space utilisation in final product assemblies.

Simple Technologies, R&D and Sales Intern

Singapore

Sep 2023 to Dec 2023

integrated solution provider specialising in photonics, microscopy, spectroscopy, and photonics metrology

- Developed a Mini Field Spectrometer
 - Manufactured a functional, battery-powered mini field spectrometer from concept to prototype.
 - Utilised Shapr3D for CAD modelling, 3D printing for fabrication, wrote Python code for the device's software interface.
 - Delivered a fully operational device with a ~4-hour battery life, enabling on-site spectral measurements for real-world use.
- Assisted in Sales Engineering
 - Provided technical support and product demonstrations to prospective clients.
 - Collaborated with sales teams to clarify technical requirements, prepared marketing materials, and showcased solutions at ITAP 2023.
 - Helped improve customer engagement and contributed to generating leads through direct client interactions and product demonstrations.

ACADEMIC RESEARCH PROJECTS

Singapore University of Technology and Design

Singapore

Portable Camping Shower, PCB & Electronics design & manufacturing

Jan 2023 to Apr 2023

- Designed and developed the PCB for a portable camping shower offering high-pressure water in remote settings
- Planned circuit components and modelling in EasyEDA to manufacture PCB
- Produced a fully operational prototype that successfully demonstrated reliable performance in field tests.
- Won SUTD Engineering Design Innovation: Best Demonstration

ADDITIONAL INFORMATION

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- Technical Skills
 - CAD (Fusion360, SolidWorks, Shapr3D)
 - Design for 3D Printing & CNC
 - 3D Printing
 - Python
 - Soldering
 - EasyEDA, KiCAD