



Ho Soon Yee

Mechatronics Student

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#28-72 S150068

🌐 <https://engineerbear8000.github.io>

Skills

- CAD, FEA, CAM
- C++, Python, Git
- Linux, Docker
- Embedded systems
- PCB design, LTspice

Personal Summary

I possess extensive knowledge and strong technical abilities in engineering design and rapid prototyping. I enjoy applying theory in creative ways to develop elegant engineering solutions. With a diverse range of interests, I regularly embark on personal projects to challenge myself and further my skills.

Education

Bachelor of Engineering (Engineering Product Development)

Institution: Singapore University of Technology and Design
2021 - Present (Graduating in 2026)

- SUTD Global Distinguished Scholar
- President, Multi Rotor SUTD

Diploma in Engineering Science

Institution: Ngee Ann Polytechnic
2016 - 2019

- Ngee Ann Polytechnic Engineering scholar:
2016-2019

Work Experience

Fabrica.AI

Electrical Engineer

Jan 2024 - Dec 2024

- Designed and oversaw production of PCBs and all electronics.
- Participated in weekly meetings to resolve complex cross department issues.
- Oversaw first V5 robot production and commissioning in Shenzhen.
- Achieved a 3x increase in speed and 5x increase in reliability compared to V4.

Fabrica.AI

Electrical Engineering Intern

Sep 2023 - Dec 2023

- Rerouted all PCBs and modified electronics of V4 robot.
- Reduced EMC by 4x enabling site deployment.
- Participated in root cause analysis and problem solving.



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Certificates and Awards

Singapore Amazing Flying Machine Competition Category D1(Tertiary) - 1st Championship 2021

- Design build and fly a semi-autonomous quadcopter to play tick-tac-toe with beanbags in real time.
- Roles: Team lead and mechanical
- <https://www.youtube.com/watch?v=RmXgP7Y6O50>

Youth Innovation Showcase and Awards

- 2019 Finalist

- Entered my final year project from polytechnic. An electro-mechanical glove that uses myoelectric sensors to drive hand movement to aid stroke rehabilitation. The project was also separately featured in the news article linked below.
- <https://www.todayonline.com/singapore/poly-students-create-low-cost-gesture-controlled-rehabilitative-glove-stroke-patients>
- Roles: Hardware design, prototyping and software integration

Academic Research Projects

Singapore University of Technology and Design Knowledge Informed, Machine Learning assisted estimation of Lithium ion battery Remaining Useful Life - Research assistant 2022

- Sourced and preprocessed lithium ion battery charge discharge data.
- Developed and trained a deep neural network model for predicting lithium ion cells' remaining cycle life based only on 1 cycle of time series discharge data.
- Integrated knowledge informed machine learning methods and successfully reduced model prediction error by 50% compared to base model.