Rex Leung

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Work Experience

Engineering Consultant Intern May 2025 - August 2025

Optik Consultancy (Australia) & Royal North Shore Hospital

- Designed client-approved solutions for portable End-Tidal Co2 Capnograph with over 90% accuracy
- Helped the team to achieve deliverables within 5 weeks and $2000 budget
- Designed a PWM controlled pump to negate the resistance of 1m long cannula

Relevant Projects

Gantry Crane August 2024 - Nov 2024

University of Technology Sydney

- Developed a linear and non-linear model of the gantry crane system to be controlled.
- Developed a control system to implement an autonomous Gantry Crane consisting of a track, trolley and hoist along with control interface.
- Designed two PID controllers for the system with overshoot less than 10%, settling time less than 5s and swing angle less than 5^{o}.

PLC Traffic Control System Mar 2025 - May 2025

University of Technology Sydney

- Collaborated with 4 members to deliver a 4-way traffic light system.
- Developed PLC logic on right turn signals and pedestrian crossings with zero conflicting signal.
- Demonstrated strong communication skills by presenting the prototype at two roadshows with more than 50 visitors each.

Solar Powered Tank - Engineers Without Borders Mar 2022 - May 2022

Collaboration with Engineers Without Border

- Demonstrated aptitude for problem solving through finishing an Engineers Without Borders project
- Analysed and designed a solution for a humanitarian engineering case study.
- Utilised strong written communication skills when preparing 2 reflective journals that outlined the project progress for development

Education

University of Technology Sydney

Bachelor of Engineering Honours (Electrical) Aug 2022 - Dec 2025 (expected)

- GPA 4.11
- WAM 61

Diploma of Engineering (Standard) June 2021 - May 2022

Languages

English, Cantonese, Mandarin

Technical Skills

MATLAB & Simulink, C/C++, System Modelling, Control Systems, Signal Processing, KiCad, Intel Quartus Prime, AutoCAD, Arduino, Printed Circuit Board design, PLC

Referees

Available upon request