

Alexander May

Embedded Engineer

Contact Me

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Based in Christchurch

Programming Languages

- C/C++
- Python

Embedded

- STM32 Family
- ESP32
- RTOS
- Hierarchical State Machines
- CAN, UART
- JTAG

Testing

- Black Box Testing
- Hardware-in-the-Loop
- Simulated Hardware

Languages

Native English & Cantonese
Speaker

Conversational Mandarin
Can read and write in Chinese

Interests

Flying Light Aircraft

Volleyball

Indoor Hockey

3D Design and Printing

Personal Statement

I build and prove firmware for embedded systems. The machines it runs in carry people who cannot walk, and I hold my work to that standard: steady, well tested, and slow to fail when someone is far from home.

Work Experience

Junior Embedded Software Engineer

Dynamic Controls (Allient NZ)

From October 2025 to Now

Develop and verify firmware for STM32-based mobility control systems, including the LINX Rehab platform.

Built hardware-in-the-loop test jigs enabling software validation against target hardware earlier in development.

Designed a Python GUI tool for dynamometer testing on electric motors for the team, as an independent project.

Research Technician

Frogparking

From November 2023 to February 2024

Worked on a project to investigate the feasibility of using Radars from Acconeer as sensors for a safety system for their products.

Education

Bachelor of Engineering (Hons) - Mechatronics

Massey University

Graduated May 2025

Worked with Novolabs to refine their UV water sanitation

system. Made a prototype of Penny-sucker, a Robot Vacuum Cleaner that can navigate in homes.

Transdisciplinary Academic Conference for Emerging Scholars

Member of External Communications Board

2025

Organised outreach events in NZ as part of TRACES' International Outreach efforts.

Contributing Writer & Presenter

Conference in Jun. 2025

Published research comparing synthetic and natural fibre composites in the TRACES journal, and presented the work at the TRACES 25 conference.