

MOHD HAFIZ

ROBOTICS SYSTEMS ENGINEERING | AUTOMATION | SYSTEMS DELIVERY

Singapore | Portfolio: <https://mohd-hafiz-portfolio.mohdhafiz472.chatgpt.site>

PROFESSIONAL SUMMARY

Robotics Systems Engineering undergraduate with hands-on experience delivering automation, product design, system integration, testing, and deployment in manufacturing, logistics, and postal operations. Skilled at converting ambiguous operational problems into requirements, prototypes, validated solutions, and maintainable technical documentation.

EXPERIENCE

Product Solutioning - Singapore Post

Industry Work-Study Programme | 2026 - Present | Singapore

- Designed and deployed a PowerShell watchdog for self-service kiosk applications, including process monitoring, controlled recovery, anti-flapping logic, logging, UAT, and operational rollout.
- Developed and iterated three integrated kiosk enclosure concepts covering component layout, ergonomics, cable routing, safety, service access, mock-up testing, and fabrication coordination.
- Evaluated AGV, AMR, and exoskeleton solutions using site constraints, technical specifications, safety considerations, vendor quotations, and stakeholder feedback.

Assistant Maintenance Engineer - STMicroelectronics

Full-time | Jun 2022 - Jul 2023 | Singapore

- Troubleshoot and isolated mechanical and electronic equipment faults to minimise downtime and prevent recurrence.
- Worked with equipment engineers to develop preventive maintenance programmes and troubleshooting guides.
- Trained junior maintenance staff in systematic troubleshooting and preventive maintenance practices.
- Led and supported continuous improvement work focused on safety, quality, service, and cost while collaborating with process and production teams to meet operational targets.

SELECTED PROJECTS

ROS Mobile Robot Navigation

- Configured mapping, localisation, and navigation workflows using ROS / ROS 2, SLAM, AMCL, and Nav2 to support repeatable autonomous mobile robot behaviour.

Embedded and Control Systems

- Developed STM32, Arduino, MATLAB, and sensor-integration projects involving PWM, UART, IMU filtering, feedback control, alarms, displays, and actuator control.

EDUCATION

Bachelor of Engineering with Honours in Robotics Systems

Singapore Institute of Technology | Current

Relevant areas: robotics, embedded systems, autonomous navigation, control, systems engineering, machine learning, and project-based development.

Diploma in Electrical and Electronic Engineering

Temasek Polytechnic

TECHNICAL SKILLS

Robotics: ROS, ROS 2, Nav2, SLAM, AMCL, mobile robotics, sensor integration

Programming: Python, C, C++, PowerShell, MATLAB

Design and platforms: Fusion 360, SolidWorks, Docker, Git, Power BI

Delivery: Requirements, systems engineering, prototyping, UAT, deployment, technical documentation

Maintenance: Mechanical troubleshooting, electronic troubleshooting, preventive maintenance, fault isolation, continuous improvement

This baseline resume contains confirmed portfolio information. Email, LinkedIn URL, and exact education dates can be added once provided.