Abdelrahman Hazem Khalil

EG: +201501557221 | MY: +601139919753 | abdulrhmanhimk@gmail.com

Arabic: Native speaker | English: Intermediate

Profile

Mechatronics Engineering graduate with hands-on experience in robotics, machine vision, and embedded systems. Built real-world systems using ROS 2, ESP32, and Zebra smart cameras.

Education

Bachelor of Engineering (Hons.) in Mechatronics Engineering Asia Pacific University of Technology & Innovation (APU), Kuala Lumpur, Malaysia — Graduated October 2025

Experience

Machine Vision Intern:

Control Easy Technology Sdn. Bhd., Malaysia (Feb 2024 – Jun 2024)

- Built a real-time defect detection system using Zebra VS40 cameras.
- Tuned vision pipeline for accurate ECU defect identification.

Projects

APU Final Year Project 2025**: AI-Controlled Humanoid Robot**

- Developed ROS 2-based robot with voice-controlled navigation and gesture recognition.
- Integrated ESP32-based servo control, NLP chatbot, and MediaPipe gesture detection.

APU Group Desing Project (2024 – 2025): **Smart AGV for Chili Farm Monitoring:**

- Led the machine vision module to detect diseased chili plants with a custom-trained model.
- Designed and tested an intelligent spraying system for targeted agricultural treatment.

Technical Skills

Programming: Python, C#, MATLAB

Robotics & Embedded: ROS 2, Arduino, ESP32, Gazebo, RViz, SLAM (Basic)

Computer Vision: OpenCV, MediaPipe

Tools & Software: SolidWorks, Automation Studio, CX Programmer, CX Designer

Online Portfolio
Click / Scan