Naveen Kathirvel
ROBOTICS ENGINEER

navinvel1625@gmail.com

+61 434024589

Melbourne, Australia

EDUCATION

Postgraduate
RMIT UNIVERSITY / Robotics & Mechatronics / 2024

Undergraduate
Anna University / Mechatronics / 2022

SKILLS

- BMS & HVAC Control Systems
- Siemens & Honeywell Automation
- Schematic Design & PCB Assembly
- Embedded Systems & Sensor Integration
- Project Commissioning & Troubleshooting
- Electrical Drafting (AutoCAD)
- Networking & IoT Communication
- On-site Troubleshooting & Customer Support

LINK

Linkedin:

https://www.linkedin.com/in/naveen-kathirvel-ab54
b5167/

PERSONAL DETAILS

Date of birth
25/04/2001

Nationality
INDIAN

Visa status
485 Visa

COURSES

Web Development
Hewlett Packard

CompTIA A+
Lumify Learn

ABOUT ME

Detail-oriented Mechatronics Engineer with a Master's in Robotics and Mechatronics from RMIT University and hands-on experience in automation, control systems, and system integration. Proven track record in PLC programming, sensor integration, and industrial commissioning. Strong background in mechatronic systems design, with experience in both hardware and software coordination. Passionate about delivering safe, scalable, and efficient automation solutions across complex projects.

WORK EXPERIENCE

UAV Systems Engineer
Aero360-Dronix Technology | Chennai, India. | Dec 2021 - Feb 2023

- Led avionics integration for fixed-wing and multirotor UAVs using GPS (RTK), PX4, and telemetry systems.
- Designed payload bays for organ transport and surveillance missions (Intel RealSense & thermal cameras).
- Integrated power systems, remote telemetry, and FPV for flight control.
- Assisted in search-and-rescue simulations and pipeline inspection testing

Mobile Repair Technician
MKC Repairs Camberwell | Melbourne | Sep 2023 - Present

- Diagnose and repair smartphones, tablets, and electronics at component and PCB level.
- Perform microsoldering, screen replacements, and water damage treatment.
- Provide customer support and manage inventory for 30+ weekly repairs.
- Implemented ticket-based workflow system to streamline repair tracking

INTERNSHIP

Automation Engineer
Ashwin Automation Pvt Ltd | Chennai, India

- Programmed PLCs (Siemens and Delta) for material handling and packaging systems.
- Created control wiring diagrams, HMI layouts, and electrical schematics.
- Participated in on-site commissioning and fault troubleshooting.
- Gained exposure to SCADA, relay logic, and sensor calibration

PROJECTS

Autonomous 3D Printer for High-Viscosity Ink
RMIT University

- Designed and built a custom Core XY printer to print copper selenide thermoelectric legs.
- Developed an air-pump extrusion system to control material flow precisely.
- Used MKS Gen V1.0 motherboard and Marlin firmware for motion control.
- Hands-on experience in field testing, troubleshooting, and firmware customization.

ROS-Based AMR
Self-Directed Research

- Integrated LiDAR, ultrasonic sensors, and Raspberry Pi for indoor navigation.
- Implemented basic SLAM with voice-assisted control interface.
- Calibrated sensors and validated real-time path planning on physical hardware.

Thermal Imaging Drone for Industrial Inspection
Aero-360 Dronix Technology

Integrated FLIR Lepton thermal camera onto a custom UAV for S&R simulation.
Designed power systems and FPV telemetry for real-time heat detection.
Simulated pipeline inspection and search-and-rescue scenarios