HUBAIL K

ROBOTICS ENGINEER | LINKEDIN

Kerala, India

(+91) 9656383100

Hubailk7@gmail.com

Portfolio

PROFILE

Robotics and automation engineer with over 4 years of experience in designing, programming, and troubleshooting advanced robotic systems. Skilled in programming various industrial robots including ABB, Omron TM, and Staubli. Proficient in ROS2, PLC programming, and embedded systems. Experienced in pneumatic design, electrical wiring, component selection, FMEA analysis, and data architecture. Comfortable using tools like GitHub and VS Code to deliver efficient, reliable, and integrated automation solutions.

EXPERTISE

Embedded Systems Development

PLC Programming

Data Architecture and FMEA

Robotics Programming

-ABB, Stäubli, Techman, ROS2

Technical Documentation

Electrical and Pneumatic system

OPCUA, Ethernet I/P, Modubus,

Profibus,Profinet etc..

Network Troubleshooting

Python, C++

EDUCATION

B-TECH – 73%
TKM College of Engineering
2017 – 2020

DIPLOMA IN ELECTRONICS
AKNM GPTC Thirurangadi
2012 – 2015

SSLC
G.V.H.S.S Kalpakanchery
2012

WORK EXPERIENCE

Robotics Engineer Nov 2022– Present

Smart Dos 10 flex assembly line | *Sinergia Media Lab, Bangalore*

- Prototyped and tested new robotic and automation solutions as part of R&D.
- Conducted FMEA and root cause analysis to improve system performance and reduce downtime.
- Designed and implemented embedded control systems for robotic peripherals and sensors.
- Selected and integrated components such as actuators, sensors, and controllers to meet specific project requirements.
- Programmed and integrated ABB YuMi and Omron TM900 robots with PLCs in the FPM system.
- Simulated robotic workflows using software RobotStudio to optimize path planning and reduce setup time.
- Tested and validated robotic systems, achieving 99% uptime in production.
- Created Python scripts to validate assembled device.

Junior Robotics Engineer Jun 2022 – Oct 2022

Fill and Finish Automation. | *Sinergia Media Lab, Ernakulam*

- Programmed and integrated industrial Staubli TX60 robots Using VAL3 programming language and SRS.
- Participated in the design and execution of test benches for hardware-in-the-loop (HIL) validation.
- Led system integration of robotic cells, including electrical wiring, pneumatic setup, and safety system configuration.

Embedded Engineer Jan 2021 – Dec 2021

IndVentr200 (i200) and iSAVE.| *Sinergia Media Lab, Ernakulam.*

- Programmed microcontrollers (e.g.,Arduino, ESP32) for sensor interfacing, actuator control, and data acquisition.
- Implemented control algorithms for pressure, flow, and volume regulation in the INDVENTR-200 ventilator.
- Designed PCB layouts for embedded controller boards and verified hardware functionality through bench testing.
- Collaborated with top researchers from NUS and MIT to co-develop embedded systems and optimize firmware for life-saving ventilator solutions during the COVID-19 crisis.