



BAKHTIAR BIMANTORO

Electrical and Instrumentation Engineering



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Bakhtiar Bimantoro



Semarang City, Indonesia

PROFILE SUMMARY

I am an Electrical and Instrumentation Engineer specializing in intelligent robotics, embedded systems, and industrial automation powered by AI and IoT. I have hands-on experience in developing robotic systems, image processing applications, and embedded control systems. Proficient in IoT system design, motor control, sensor integration, and PLC & HMI programming, I am also actively engaged in computer vision research for Industry 4.0, with strong capabilities in CAD design and 3D printing for functional product prototyping.

EDUCATION

Politeknik Negeri Semarang
Electrical Engineering
2022 - Present

SMKN 3 Tegal
Electronics Engineering
2019 - 2022

SKILLS

Technical Skills

- Embedded Systems
- Vision AI
- IoT System Design
- Robotics
- PLC & HMI Programming
- CAD & 3D Printing
- Automation System
- Sensor-Actuator Integration

Soft Skills

- Leadership
- Problem Solving
- Time Management
- Adaptability

LANGUAGE

- Indonesian - Native / Fluent
- English - Intermediate
- Japanese - Beginner

AWARDS

- 🏆 **1st Place – Innovative Product Design Category**
Politeknik Negeri Semarang | September 2024
- 🥈 **Silver Medal – Electronics and IoT Category**
Indonesian Young Scientist Association (IYSA) | April 2024
- 🏆 **1st Place – Robot Transporter Category**
Politeknik Negeri Semarang | February 2023

PROJECT EXPERIENCE

Custom Electronics System Design & Implementation

- Tracking device using SIM800L GPRS module
- Temperature monitoring and alarm system
- Home power consumption monitoring system
- 4-DOF robotic arm with vacuum end-effector for moringa leaf

ORGANIZATION EXPERIENCE

Polines Robotic Evolution (POLIREVO)

Electronics Division – KRAI Team

july 2023 – july 2024

- Designed electronic circuit schematics using Eagle and Proteus.
- Planned electronic components required for the robot.
- Analyzed and troubleshooted electronic system issues during robot development and testing.

WORK EXPERIENCE

CV. MITRA MAPAN – Tegal, Central Java

Technician

july 2021 – December 2021

- Assisted in the maintenance and repair of electronic equipment.
- Supported installation and component testing processes.
- Coordinated with the technical team to ensure smooth operations.