Ali Renan Uyanık

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Profile

3rd year Electrical and Electronics Engineering student with strong interest in robotics and artificial intelligence. Skilled in project management, documentation, and PCB design using KiCad, with hands-on experience across electronics, software, and mechanical design. Currently developing a quadruped robot and aiming to specialize in the integration of robotics and AI.

Experience

Student Assistant, Electrical and Electronics Engineering Dept.   Mar 2024 – Present

- Assisted in laboratory courses by preparing equipment, supporting experiments and guiding students.
- Maintained lab safety and documented experimental procedures.
- Strengthened teamwork and communication skills through collaboration with faculty and students.

AI Engineer, WYSEYE   Nov 2025 – Present

- Working on computer vision and machine learning projects for real-time systems.
- Involved in model development, optimization and system integration.

Projects

Team Leader, Autonomous Guided Vehicle (TEKNOFEST)   Feb 2024 – Sep 2024

- Led the design of an autonomous logistics vehicle capable of carrying 125 kg.
- Worked on electronics (ESP32, Jetson Nano, LiDAR, motor drivers) and software (ROS, Python based navigation and obstacle avoidance).

Team Leader, Agricultural Robot (TEKNOFEST)   Dec 2024 – Jul 2025

- Built a robot for autonomous weed detection and elimination.
- Contributed to electronics (Raspberry Pi 5, Intel Realsense, motor drivers, sensors) and software (image preprocessing, YoloV8 training, detection algorithms, Isaac Sim).

Electronics Design, High Voltage Measurement Test (TÜBİTAK – CERN-related Project)   Jan 2025 – Present

- Designed a 48-channel high-voltage measurement board (100V–1000V) for scientific and industrial-grade applications.
- Responsible for schematic design and PCB layout in KiCad, following high-voltage design standards such as IPC-2221.
- Contributed to technical reporting and cost-efficient component selection.

Skills

Programming & Simulation: Python, C++, ROS,
Electronics & Hardware: KiCad PCB Design, ESP32, Jetson Nano, Raspberry Pi, Lidar, Fusion360, Bullet Python
Project Management: Jira, ClickUp, Technical documentation, Budget management, Team coordination, Excel
Languages: Turkish (Native), English (B2)

Education

B.Sc. Electrical and Electronics Engineering, Istanbul Topkapı University   Sep 2022 – Expected 2027