

<Panikk_Protokoll>

A WINNING TEAM SOMETIMES CHANGES....

Konrad Magnani
3d designer

Simone Adami
Robot Mechanic



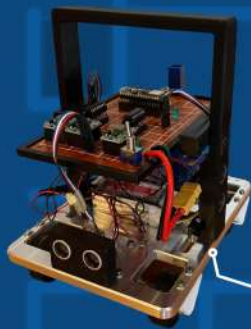
Arianna Nicolussi
Electronical
Designer

Ylenia Bais
Team Captain
Programmer

Building on last year's impressive debut ranking 4th in Italy and 9th in Europe the team has returned with a slightly restructured lineup and a new robot.

- Ylenia (Team Captain): The newest member who stepped into the leadership role, overseeing the entire production process and developing the robot's code.
- Konrad & Simone: Handled the mechanical design and production, utilizing Inventor, 3D printing, and CNC machining.
- Arianna: Served as the electronics expert, responsible for designing and managing the robot's electrical systems.

MECHANICALS ASPECTS



To maximize durability and precision, the robot's construction focused on structural integrity and sensor placement

Chassis: Machined from aluminum using a CNC mill for a robust frame.

The handle was specifically designed to house two of the three distance sensors.



Incorporated bearings to support the load and prevent unnecessary stress on the motor shafts.

ELECTRONICS AND CODING

This project utilizes an Arduino Nano ESP32 as the central hub, chosen for its cost-effectiveness, reliability, and integrated gyroscope.

Component	Specifications / Quantity
Controller	Arduino Nano ESP32 (w/ built-in gyroscope)
Motors	4 Units (5W total power consumption)
Sensors	3x Distance (Front, Left, Right) + 1x Color Sensor
Alignment	2x Limit Switches
Actuator	1x Servo (for the dispenser system)
Power Source	11.2V, 2.2Ah Battery / Step down 11.2-6V

