

## TEAM



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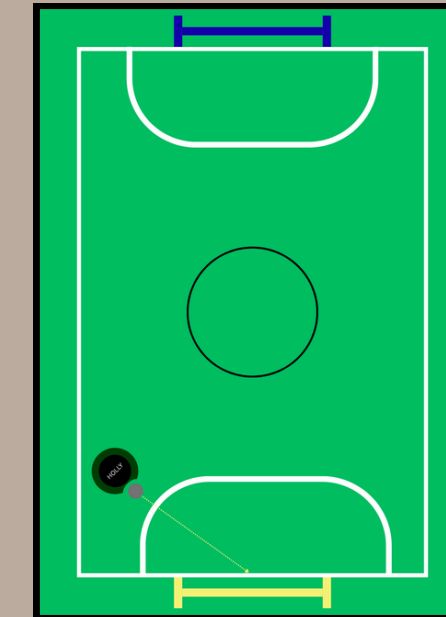
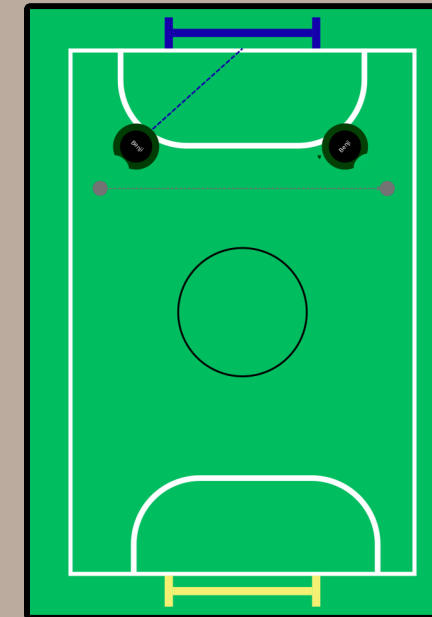
Via Gennaro Pasquariello, 27

## ABSTRACT

The Ikaro team was founded in 2022 as an “soccer open” team. In 2023 we achieve a third place at the RomeCup. At the beginning of 2024 we decide to switch to the Soccer LightWeight category, winning the RomeCup and the Italian RoboCup in Verbania, at the 2024 World Cup in Eindhoven we finish 19th. In 2025 we won the RomeCup and the Italian RoboCup in Pescara, qualifying for Salvador 2025.

## Defensive Strategy:

To protect our goal, our goalkeeper (Benji) follows the position of the ball and follows it by staying on the line of the penalty area, maintaining a 180° angle to the goal. This tactic is the best for protecting our goal.

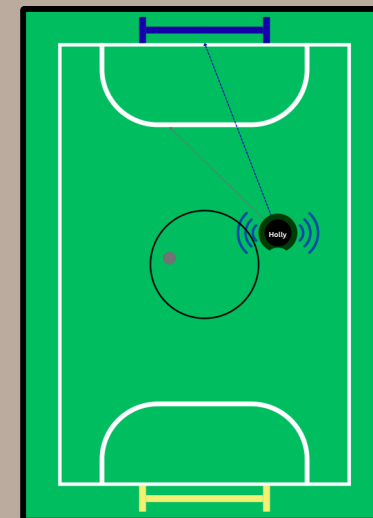


## Offensive Strategy:

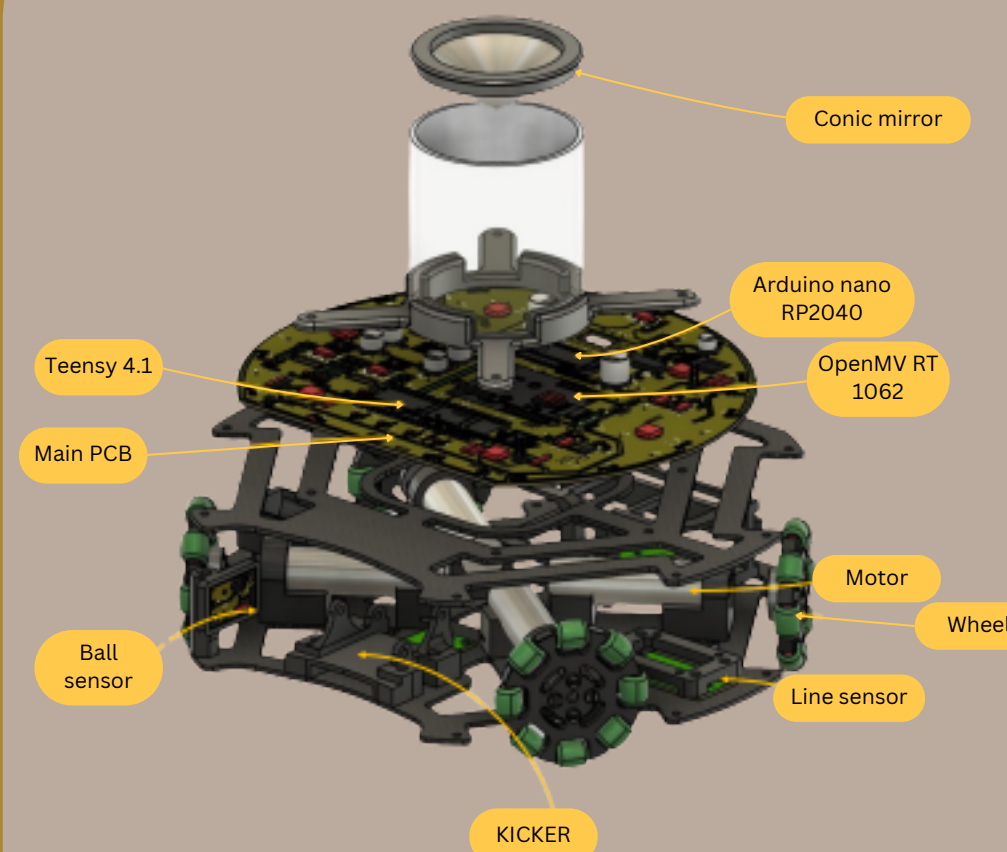
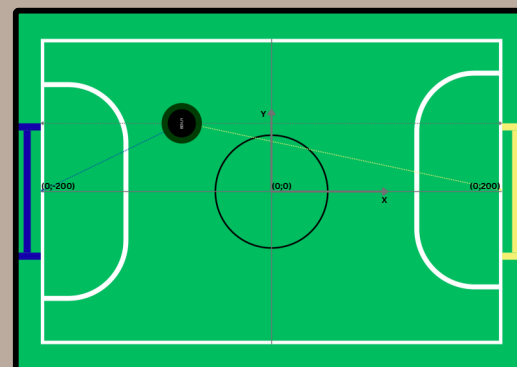
Our striker is programmed to recognise and orientate itself towards the opponent's goal. It is also equipped with a “catch ball” sensor and a solenoid as kicker to score by kicking the ball into the goal.

## 2025 Improvements:

This year we added a Bluetooth module to each robot. These modules allow the robots to communicate with each other and when the defender is out the attacker can play defense.



We introduced a coordinate system to estimate the position of the robot in the field. This is done by viewing the two goals and graphing a Cartesian plane. This system is not 100% accurate but gives us an estimate that is more accurate the farther the robot is from the midfield.



## OUR WHEELS

On our robots we mount two different types of wheels, the striker is equipped with 4 wheels with small silicone cylinders. The defender, on the other hand, has classic omnidirectional wheels with 17 rubber rings. This is because the striker needs more braking, offered by the silicone, while the defender needs more fluidity in lateral movements, offered by the smaller space between the rubber rings.

