Football Playing Robot:

In this exercise you will design (and implement part of) a robot which plays a variant of football.

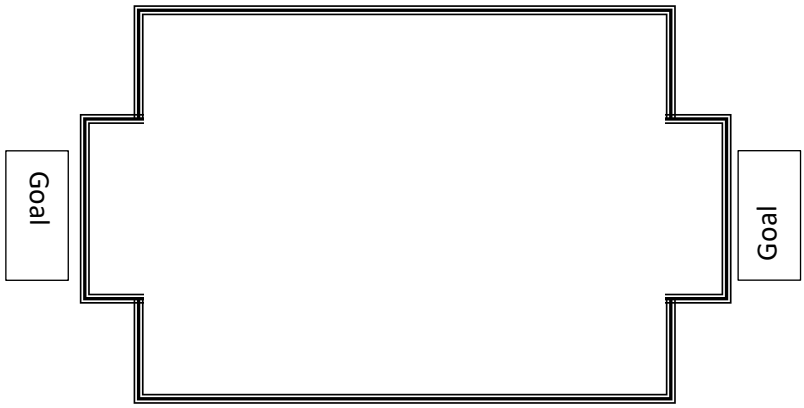
Let's first describe this unique football (European) alike game:

The game:

As mentioned, the game is a variant of football, in which the aim is to push a ball to the other team's goal.

The field:

1. The field has walls, they are high enough and the ball is only rolling on the floor anyway.
2. The dimensions are FIELD_LENGTH and FIELD_WIDTH, the goals are parametrized as well.
3. The goal has walls at the back.



The robots:

1. The robots are round with a radius, ROBOT_RADIUS.
2. They can move in 4 directions, left, right, forward and backwards.
3. They can also rotate.
4. There are 2 robots for each team.
5. They have 2 sensors:
    a. Forward laser that returns the distance to the watched object, it turns with the robot.

    b. Transceiver (Radio) that allows robots of the same team to send messages.

The ball:

A simple ball with radius BALL_RADIUS, is expected to be smaller than the robot's.

Your mission:

- It was decided to split the design of the two robots of your team, you will **design** the **goalkeeper**.
- Your robot's only task is to **prevent the ball from getting in your goal**.
- Write high level code implementation in Python 3.

An important note about the exercise, you are not required to write 100% of the code so there is an actual robot running.

For example (and maybe a free hint) , if you decide that each robot should keep track of its position and send once in every 10 milliseconds – you should probably describe (and give the code) how your robot will do it, but it's ok to assume that a function like get_teammate_position() will just work and create x,y for example.

The main goal is to see how you manage the task, so in case you need to make an assumption about the game feel free to do so (provided it's reasonable) and please document.