

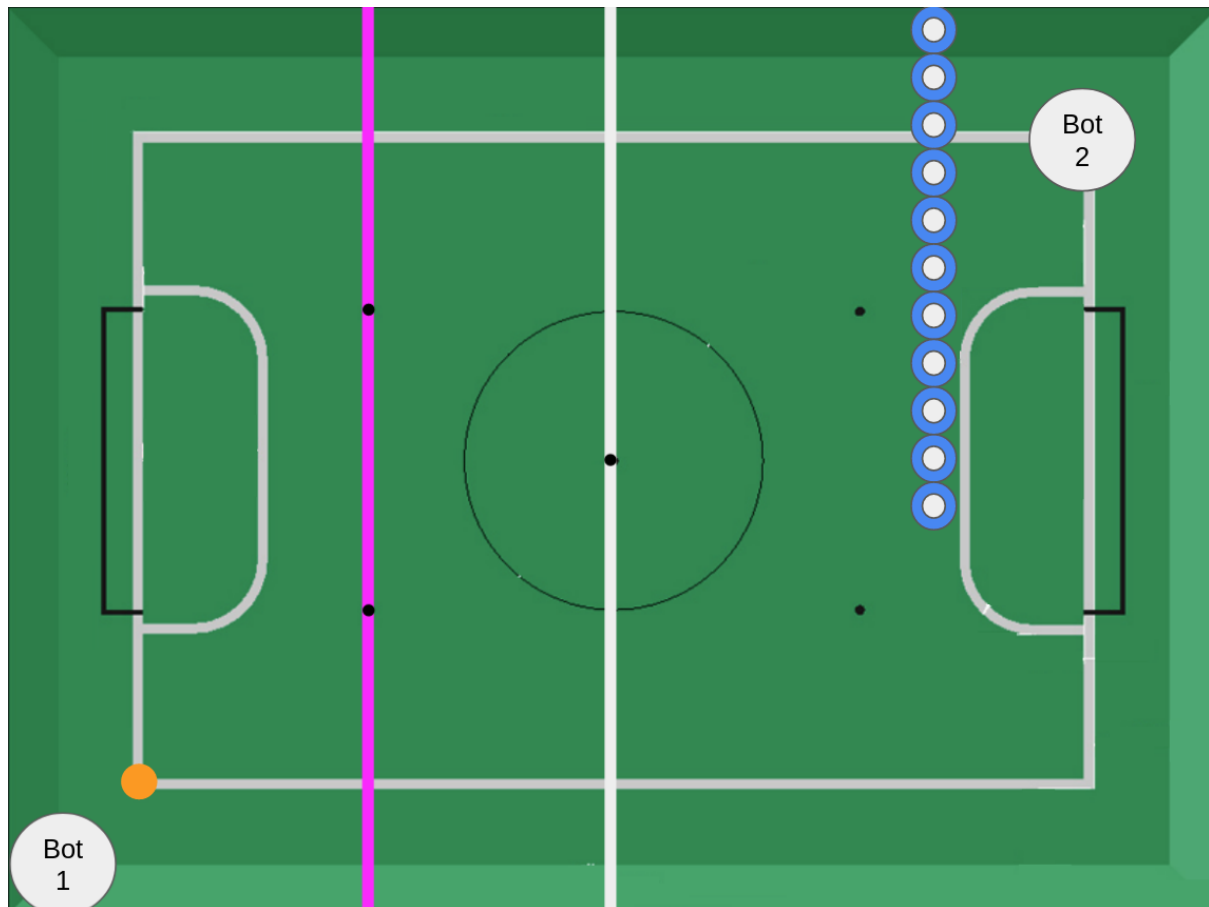
# Technical Challenge LW.3 and O.3

For Soccer Open and Soccer Lightweight  
“Corner Kicks”

## Goal

Score as many goals with robot 2 as possible starting from a corner kick situation. You have five attempts, the time you take will not affect your score. The video you submit must be a single take without any cuts.

## Field Setup



- Make sure your penalty zone complies with the latest soccer rules (white line, rounded corners etc.)  
[https://cdn.robocup.org/junior/wp/2020/10/2021\\_Soccer\\_Rules\\_final02.pdf](https://cdn.robocup.org/junior/wp/2020/10/2021_Soccer_Rules_final02.pdf)
- Move the barrier from the previous challenge so that it touches the wall and the outer edge of the penalty area line (see picture)
- Place one robot (robot 2) onto the corner of the field that is behind the barrier (see picture)
- There's an imaginary line going through both neutral spots on one half of the field, stretching across the entire width (pink). We will call it *quarter-line* for this challenge.
  - Please mark this line with any tape and make sure that both, it and the centerline, can be seen clearly on video.

# Description

For each attempt:

- The ball is placed on the corner of the field (see picture) opposite to the neutral spot that is surrounded by the barrier.
- The other robot (Robot 1) is placed in the corner behind the ball.
- There is no out of bounds rule in this challenge.
- The barrier (including its individual parts/bottles) may not be moved in any way.
- Robot 1 has to shoot the ball across the field so it passes the half-way line.
- Robot 1 may never cross the quarter-line line even partly.
- Robot 1 has to position itself fully inside the penalty area in front of the attacked goal and remain inactive thereafter.
  - > Tractive system turned off
- Robot 2 has to score a goal on the opposing half from where it started from, while not crossing the quarter-line either (no partial crossing allowed).
- Robot 2 may not touch the ball until the ball has passed the half-way line entirely *and* robot 1 is in place.
- Robot 2 may not attempt to score again after the ball has crossed the quarter-line.
- Robot 2 may **only be touched using its handle** in between attempts!
  - > *You are not allowed to reset it or provide any other kind of user input*
- The attempt is over as soon as the ball either hits the goal's back wall, dies down or 1 minute has passed.

## Special rule

- You are awarded additional points, if robot 2 does not move at all until the ball has crossed the half-way line and Robot 1 is standing still inside the penalty area.
  - Robot 2 has to react to that event within 1 second in order to get these points.

## Grading

- You will be awarded 3 points for each successful attempt (goal scored within time limit).
- You will be awarded an additional 1 point for every attempt where the special rule is followed.

## General Guidelines

- The robots participating as well as the field must comply with the general Soccer LWL and Open rules respectively unless stated otherwise within this document.
- Disobeying any of the rules above will immediately end that attempt with a score of 0.
- The video must include your team name, league and the number of this challenge.
- The video of your robot solving the challenge must be one take, without any cuts.
- The video must be uploaded to youtube.com or vimeo.com.
- Make sure both sides of the field are clearly visible.
  - Filming top-down or at least from an elevated position is strongly preferred.
- Please send in your video submission **until June 25rd, 3pm UTC** here:  
<https://forms.gle/T5RQYCpmXJMNQ7e9>