

SoccerSim Technical Challenge S.2

"The ball passing machines"

Goal

Within two minutes, pass the ball through Q1 -> Q2 -&; Q3 -> Q4 -> Q1 as many times as possible.



Description

- Get an updated version of SoccerSim specifically prepared for this challenge which you can locate at <https://github.com/RoboCupJuniorTC/rcj-soccer-sim/tree/C2> (please note it is in branch C2)
- You are controlling (that is, programming) the yellow team robots Y1 and Y2 (code should be located in "pass_ball_yellow" controller) and the blue team robots B1 and B2 (code should be located in "pass_ball_blue" controller)
- The field is split into 4 parts (Q1, Q2, Q3, Q4) - each part contains just one robot
- The ball starts at a fixed position in Q1.
- The robots cannot leave their respective Q-part.

- The ball should be passed from Q1 to Q2, then from Q2 to Q3, then from Q3 to Q4 and finally from Q4 to Q1. We call this one **round**.
- When passing the ball from Q1 to Q2, **you can also score a goal to the yellow goal**. The same applies when passing the ball from Q3 to Q4 (**you can score a goal to the blue goal**). In case of a successful **round**, the number of goals will be added to the score.
- If you successfully do more consecutive rounds, the “streak” counter is increased.
- If any of the robots leaves its Q-part or the ball is passed to a wrong Q-part, all the robots and the ball are reset to their initial position. Moreover, the streak is also reset.
- The timer stops after 120 seconds (two minutes).
- If you want, you can use GPS/Compass sensors instead of reading data from supervisor, which is a little bit faster. You can see the modified version in <https://junior.forum.robocup.org/t/soccer-simulation-sensor-usage/2155>

Grading

- For each **successful round** (Q1 -> Q2 -> Q3 -> Q4 -> Q1) you get +1 point.
- If there is a **streak**, the points for each **consecutive successful round** are multiplied by this streak (for example, 1 + 2 + 3)
- If you score a goal when passing the ball Q1 -> Q2 or Q3 -> Q4, you get +1 point for **each goal after successful round**
- If you miss your interview or if your presentation is longer than 3 minutes, you'll get half of the points that you scored.

General Guidelines

- The simulation must include team name, league and the number of this challenge (feel free to use the team name label at the top).
- Please use the webots video export function (“[Make Movie](#)”) and export to MP4/AVI.
- The video must be one take without cuts.
- The video must be uploaded to youtube.com or vimeo.com.
- Please send in your video submission **until June 25rd, 2pm UTC** here: <https://forms.gle/T5RQYCpmXJMNQ7e9>