# **Technical Challenge S.1**

"Is that alpine skiing?"

## Goal

Within two minutes, shoot as many goals as possible to an open goal (i.e. with no opponent) after driving slalom around obstacles.

### Description

- Get an updated version of SoccerSim specifically prepared for this challenge which you can locate at <a href="https://github.com/robocup-junior/rcj-soccersim/tree/TC1">https://github.com/robocup-junior/rcj-soccersim/tree/TC1</a> (please note it is in branch TC1)
- You are controlling (that is, programming) the yellow team robot (code should be located in the "slalom" controller)
- The robot starts at a random location in the yellow goal penalty area.
- Other robots (obstacles) are arranged like slalom poles with some random noise added.
- The first task of your robot is to drive slalom around obstacles it does not matter if your robot starts the slalom from left or right hand side see Figure 1 for clarification.
- After completing the slalom, there's the ball randomly located in the blue penalty area your robot must shoot a goal to the blue goal.
- If your robot touches any of the obstacles, the robot, obstacles and the ball are reset.
- Once the goal is scored, the robot, obstacles and the ball are reset.
- The timer stops after 120 seconds (two minutes).

### Grading

- For each goal scored to the blue goal **after completing the slalom** you get +1 point - we will review your submissions since the referee is not capable of judging whether the slalom was performed well.
- For each goal scored to the yellow goal you get -1 point.

#### **General Guidelines**

- 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 July 20th 2023 here: <u>https://forms.gle/hKDvWzY5HoaBrNgD7</u>

Figure 1: Example of how the slalom can be performed (you can choose either red or blue path).

