RoboCup 2021 SSL Ball Placement Technical Challenge Rules

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References to the male gender in the rules with respect to referees, team members, officials, etc. are for simplification and apply to both males and females.

1. Goals of the Technical Challenge

Given the goal of preparing Division B teams to participate in Division A, this technical challenge aims to incentive Division B teams to develop one of the skills needed to play a match in Division A. In this case, the challenge is to autonomously place the ball using the robots ("**AutoPlacement**").

1.1. Participation Requirements

All Division B teams are eligible and **must** participate in this challenge.

Also, this challenge must be performed with **real robots**, i.e., not using the simulator. In case of any problems regarding access to your labs, please contact the TC/OC.

2. Procedure

Since this challenge must be done remotely, each team is responsible to issue the **AutoPlacement commands**. This can be easily achieved by using the SSL Game Controller (GC) with a connected AutoRef. The command can be issued using the "**Place Ball**" button, located at the bottom left side of the GC GUI.

Also, teams should provide a video stream along with the screen share of the GC, which prints the placement timings. In case of any technical issues, the logs of the challenge must be recorded through the SSL Log tools and sent to the TC.

The AutoPlacement command includes a **game state**, which can be **BallPlacementYellow** or

BallPlacementBlue, and the requested ball position. Before and after those commands the game is in Stop state, therefore, the robots are allowed to position themselves wherever they want before the placement starts, while following all Stop state rules.

When the robots are done positioning, the AutoPlacement command will be issued and the rules for this state can be found in the rule book.

The starting and desired positions of the ball will be sent to the teams prior to the challenge.

Teams are allowed to use up to 6 robots.

3. Evaluation

Every team places the ball in the same situations. The number and kind of situations will be determined by the TC.

A point will be awarded for every successfully placed ball. In case of ties, the team that was capable of placing the balls in the least amount of time wins.

The TC reserves the right to change the evaluation procedure.