

RoboCup Soccer Simulation 2D League Meeting

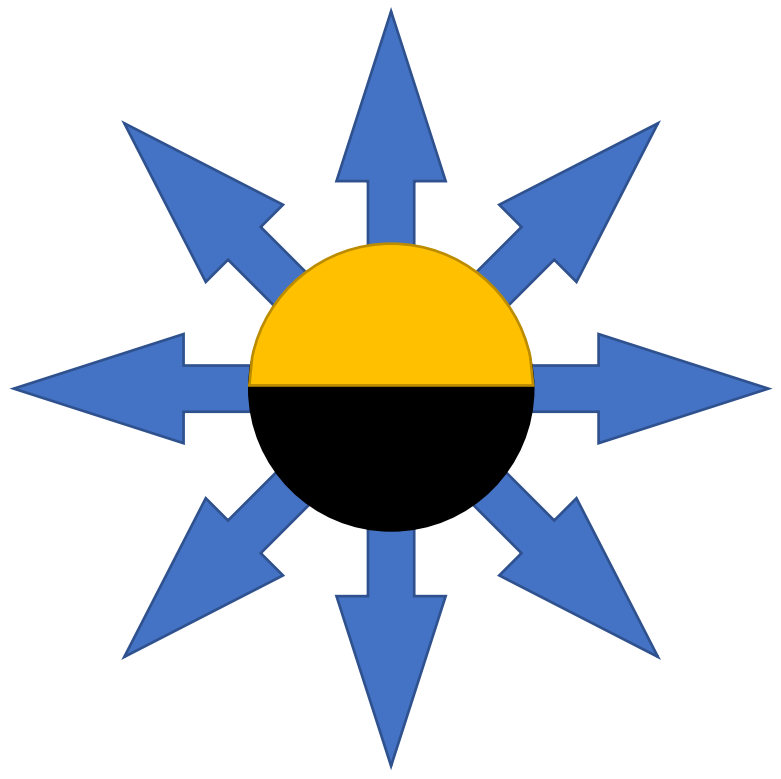
10:00am, June 19, 2020 (UTC)

Agenda

- Rule changes made for the 2020 competition
- Planned rule changes for future competitions
- Any further rule changes
- Ideas for promoting new teams
- Announcements

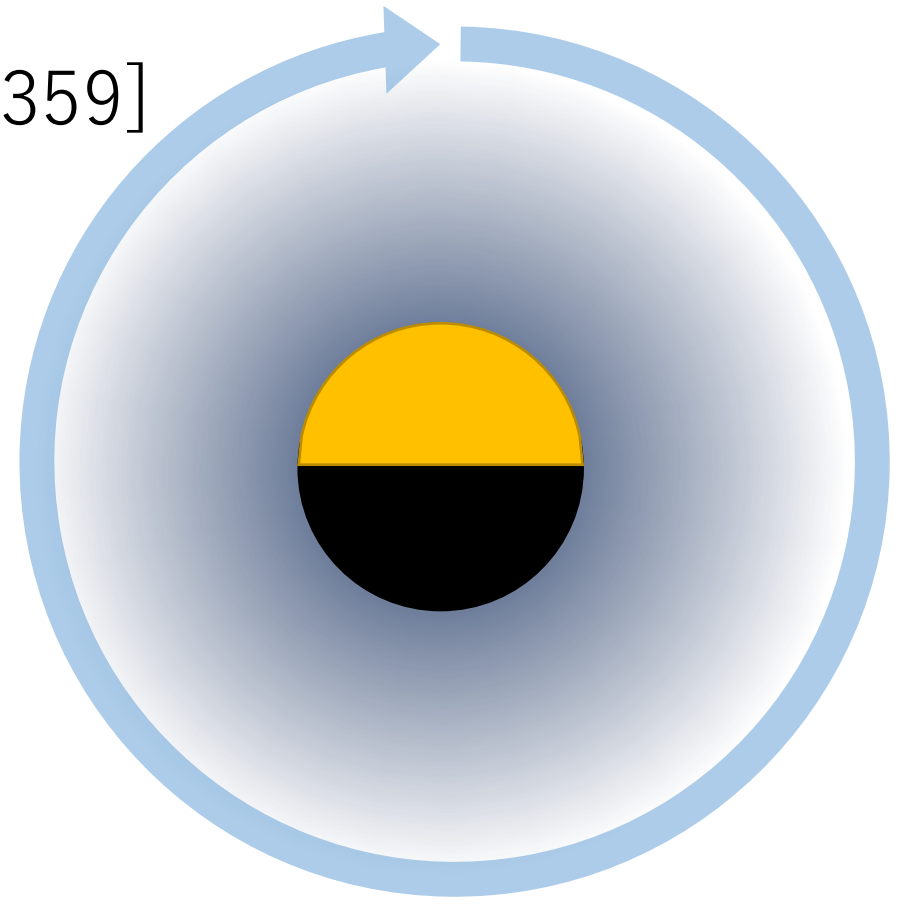
Rule changes made for the 2020 competition

Omni-directional dash



Before (Eight directions)

[0, 359]



Now (specify an integer in [0, 359])

Rule changes made for the 2020 competition

Automatic judge for “illegal defensive”

Caution! !

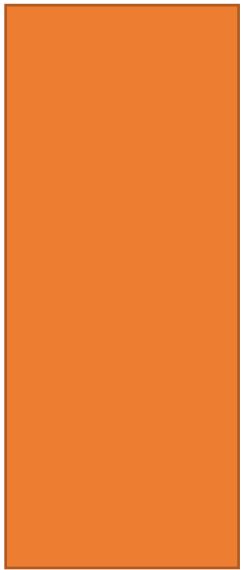
This rule was introduced in order to prohibit un-gentlemanly behavior in front of their own goal.

It is recommended that the rule be turned off eventually and teams behave gentlemanly in light of playing against human soccer teams.

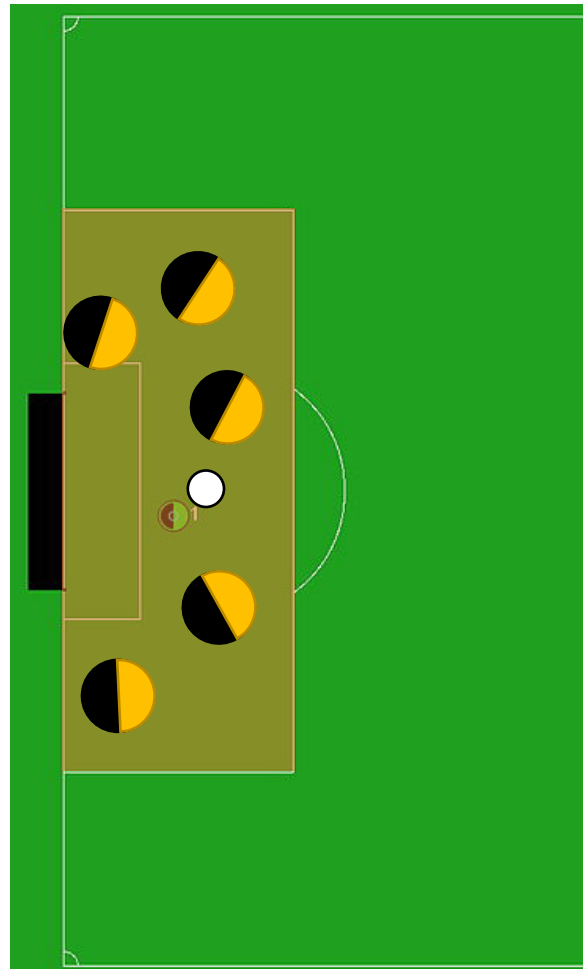
Rule changes made for the 2020 competition

Automatic judge for “illegal defense”

server::illegal_defense_width
(Default value is 40.32)



server::illegal_defense_dist_x
(Default value is 16.5)



Players of a defending team (i.e., a non-ball-possessing team) are monitored whether they are in the area or not.

An illegal defense state is defined as the situation where the number of players in the area is more than or equal to *server::illegal_defense_number* (default value is zero).

illegal defense violation is called when the illegal defense state lasts more than equal to *server::illegal_defense_duration* (default value is 20).

When **illegal defense violation** is called, the game is restarted from a fixed point (currently at (+-41.5, 0)).

Planned rule changes for future competitions

- 2.5-dimensional soccer simulation
 - The third-dimension (i.e., altitude) is introduced for **the ball**
 - **Players** will have a height information
 - Players' movement remain two-dimensional
 - Kick command will have an additional parameter regarding elevation
 - Head/punch commands?
 - 3D monitor should be developed as well (by only shadow and various radius of the ball?)
- Plan
 - Pre-release in the 2021 competition at the earliest
 - Official release in 2022, Test matches during the competitions
 - Official matches in 2023?

Rule Suggestion at the meeting

Change the vision sensor model

- Proposal:

The timing of sending see messages is changed to the end of the simulation cycle.

- Motivation:

In the current rule, the see messages are sent to players at the beginning of the simulation cycle if players use the "synch_see" command. This specification means players can decide on their actions using observations of the field state at the same simulation cycle. As a result, players can immediately react to the ball within the same cycle as long as they can observe it. However, such a reaction time is not possible in reality. Generally, it takes more than 0.2 seconds for humans to respond to an audiovisual stimulus.

- Expected Effect:

It will be too difficult for players to react accurately to the ball kicked in the previous cycle. As a result, it will become more difficult to decide defensive actions especially for blocking the shoot or pass. This is a change that makes the simulation more realistic, gives the attacker an advantage and hopefully makes the game more attractive.

Any further changes

- Any suggestions?
- Your suggestion is welcome. Off-line discussion can be made in the robocup-sim mailing list
 - robocup-sim@cc.gatech.edu

Ideas for promoting new teams

- We need volunteers for documentation
 - Part of qualification materials for competitions
 - Any volunteers who work on Tutorials (GitHub or ssim.robocup.org)?
- We also need volunteers for lecture series
 - Videos?
 - Persian materials (They need volunteers for translating them into English)
 - Web site <https://rcss.ir/2D/FA>
 - Youtube channel <https://www.youtube.com/channel/UCTBjTpbgmLBFAj672tVeLyQ>
 - Educational materials?
- Junior league
 - Simpler protocols or commands

Announcements

- Competitions go online
 - Unofficial tournament after this meeting
 - Japan Open 2020 (planned in August)
 - Brazilian competition in November 14 (online) <http://www.cbrobotica.org/>
 - Nasircup <http://nasircup.kn2c.ir/>
 - Any others?
- On the 2021 competition
 - Re-scheduled: June 22-28, 2021
 - Bordeaux, France
 - Qualification process is to be discussed among Organizing Committee