

SDP Rules 2017: Referee Edition

Last update: 12/01/17

The Referee's Role

Each match is controlled by a referee whose decision is final. The referee is responsible for ensuring that the robots meet the requirements mentioned in the main rules document, as well as enforcing the rules of the game. The referee will start and stop play, award goal scores, penalties, place balls, and penalise robots or groups who misbehave - enforcing the rules for good behaviour.

Guiding principles

Fairness: Be as fair as possible to all participants.

Spectacle: Matches should be interesting to play and watch.

The referee will usually be assisted by one or more assistant referees, but for the purposes of clarity the main referee should be the one issuing instructions and giving verdicts. Assistant referees will generally take care of timekeeping or any other task delegated to allow the main referee to focus on the game. The two referees should try to position themselves at opposite sides of the pitch for a more complete view of the game.

Match Procedure

Pre-Match

- Ensure that the Operator and Handler from each group are present. Any other students should be asked to leave the room.
- Confirm that the groups are ready and able to play the match.
- Place the ball at the centre of the pitch.
- Remind the teams of their starting halves and ask the Handlers to place their robots on the pitch, one to a corner, along with their printed team logo.
- Start timing the setup.
- After 1 minute of setup time has passed (or all teams confirm that they are ready), ask the Handlers to remove their team logos.
- Give the instruction to **Start the Match**.
- Start timing the match.

Goals

- A goal is scored if the ball passes fully over the goal line. Keep a note of the score.
- Announce the goal and **Stop the Match**.
- Give the instruction to **Reset the Match**. Operators should stop their robots, then Handlers should move their robots back to their starting corners.
- Place the ball at the centre of the pitch.
- Give the instruction to **Start the Match**.

Half Time

- When the match timer reaches 3 minutes, the first half is over.
- Announce half time and **Stop the Match**.
- Give the instruction to **Reset the Match**. Operators should stop their robots.
- Start timing Half Time.
- Place the ball at the centre of the pitch.
- Make sure that the teams swap shooting directions. The Handlers should place their robots in their new starting corners.
- After 1 minute of Half Time has passed, confirm that the groups are ready.
- Give the instruction to **Start the Match**.
- Start timing the match again.

End of Match

- When the match timer reaches 3 minutes again, the second half is over.
- Announce that time is up and **Stop the Match**.
- Announce the score.
- Ask the teams to clear the pitch room ready for the next match.

Boredom Reset

- At times, mostly due to robots or the ball getting stuck, it may be necessary for maintaining the **Spectacle** principal that the referee call a reset mid-game. This is left to referee discretion, but should be done only if it seems as though the match will go nowhere if left alone.
- Announce the boredom reset and **Stop the Match**.
- Give the instruction to **Reset the Match**. Operators should stop their robots, then Handlers should move their robots back to their starting corners.
- Place the ball at the centre of the pitch.
- Give the instruction to **Start the Match**.

Extra Time

- During tournaments, if the match timer in the second half gets to 3 minutes and the score is currently drawn, then announce that the match is going into **Extra Time**.
- The match continues on as normal until either: a) the match timer gets to 4 minutes 30 (1 minute 30 after the second half ended) or b) a goal is scored.
- Announce that the match is over and **Stop the Match**.
- Announce the score.
- Ask the teams to clear the pitch room ready for the next match.

Note: If after Extra Time has been played the match is still drawn, the winner will be decided by first goal scored. If no goals were scored, the match result will be declare as a draw.

Fouls and Misconduct

To streamline the rules and minimise the interruption to matches, misconduct by either robots or human beings will be punished by the removal of the offending group's robot from the pitch.

General Procedure

- Misconduct by robot or person is observed.
- Announce that a Yellow/Red card is being given, to which team and why.
- The offending robot should be **Stopped** and **Removed**.
- The assistant referee should take over at this point to allow the main referee to focus on the match.

Warnings

In many cases, usually of human behaviour, it is sufficient to warn the guilty party that they shouldn't be doing what they're doing.

If after issuing a warning the behaviour continues or is repeated, it may be necessary to escalate it to a Yellow Card.

Examples:

- Operator leaving their computer during a match.
- Someone leaning over the pitch in a way that would block sight from the camera.
- Handlers taking too long to remove a robot when asked.
- Person interfering with the match without permission/instruction from the referee.
- Person interacting with their software while a match is underway without permission/instruction from the referee.

Yellow Card (Minor Infringement)

If an offense involves the robot doing something that needs to be intervened with, or if a team needs to be punished for repeated bad behaviour, then a Yellow Card should be issued.

Procedure:

- Once the robot has been removed from the pitch, start a timer.
- After 30 seconds have passed on the timer, allow the robot's Handler to place it back on the pitch in its starting corner.
- Allow the robot's Operator to **Start** it.

Examples:

- Pieces of the robot falling off.
- Obscuring the ball.
- A second instance of an offense a Warning was already issued for.

Red Card (Major Infringement)

If an offense shows blatant disregard for the spirit of SDP, or after issuing a Yellow Card the behaviour continues, then a Red Card should be issued.

Procedure:

- The removed robot is not replaced until Half Time or, if Half Time has already passed, Extra Time.
- If a Red Card is issued during Extra Time, then the receiving team **automatically loses** the match.

Examples:

- Purposeful attempts to undermine the game.
- Displaying aggressive behaviour towards any other person.
- A second instance of an offense a Yellow Card was already issued for.

Innocent Bystanders

In the event that the offending action caused another robot to be taken off of the pitch, then the guilty party should be removed as usual, but the count down to them being allowed back on the pitch should not start until the other robot is back in play.

Robot Handlers and Operators

Each group should nominate one robot Handler one Operator. These are the only team members who should be present in the pitch room during a match.

Handlers

Robot Handlers should be positioned at pitch corners during play. They are responsible for handling their group's robot (starting the onboard software, placing the robot on the pitch, etc) as well as for removing any robot that the referee requests be removed from their quarter of the pitch. Handlers should therefore not be leaving their corners and robots should be passed between Handlers to get them back to their owning group.

The main behaviours expected of Handlers are:

- a) They do not interact with any robot or the pitch (including blocking sight from the camera) without the permission of the referee.
- b) They show an appropriate level of care and respect for other groups' robots when handling them.

Failure to meet these standards can be punished as Yellow or Red Cards or, if the offending behaviour continues, by the group being asked to provide a different handler.

Operators

The robot operators should be stood at their group's desktop computer and tend to any software required to run the robots. They may calibrate their system while play is not ongoing, provide their system with contextual information when the referee instructs (kick off, robot reset, etc) and monitor the health of their system, but should in no other way be interacting with their system.

The main behaviours expected of Operators are:

- a) They do not interact with their computer during play except with the permission of the referee (ie. the referee has called robot stop, robot start, etc).
- b) They respond quickly when an action such as stopping their robot is asked of them by the referee.

Failure to meet these standards can be punished as Yellow or Red Cards or, if the offending behaviour continues, by the group being asked to provide a different operator.