

RoboCup MSL – 2022 Rule Changes

Disclaimer: This document contains an overview of the Rulebook changes introduced for the 2022 RoboCup competitions. It was created to facilitate the integration with new rules, but it does not replace the reading of the official rulebook in any way.

The Executive and Technical Committees would like to thank all the contributions of the teams with proposals for rule changes. Rules are adapted with the league roadmap in mind, making sure that the evolution goes towards the RoboCup 2050 goal, along with a steady scientific progress.

The Technical Committee will be creating a rule roadmap, independent of the rulebook. This will contain rule proposals and the projected year of implementation, allowing teams to prepare further in advance for larger steps forward of the league.

The actual implementation of the roadmap (both the exact specification of the rules, and exact year of introduction) is handled by the Technical Committee at the time of introduction.

Any questions or issues regarding the rules should be addressed to the MSL Technical Committee mailing list: rc-msl-tc@lists.robocup.org

The 2022 Middle-Size League Exec/Technical Committees members,

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Clarifications

#1: Substitution (RC-3.5)

- Multiple substitution can be requested at once, while obeying the maximum number of substitutions per match.
- The time limits are 15 and 20 seconds, irrespective of the number of robots being substituted.
- In case the time limit is exceeded or a robot crashes, the offending robots need to be taken out for repair.
- No team member can stay near the substituting robot from the moment of approval (rather than the moment of request). This allows teams to disable the emergency stop only when the referee has approved the substitution.

#2: Technical verification of communications (RC-4.2.5)

Any device to measure RSSI with an external directional antenna can now be used. It is no longer limited to the *Fluke Wi-Fi AirCheck*.

#3: Technical and Scientific challenge scores

The computation of scores for the Technical and Scientific Challenges has been clarified.

#4: One solution at Technical Challenge

Like the Scientific Challenge, teams can only present *one* solution at the Technical Challenge.

Changes

#5: Restart spots (RC-1.2.3)

The restart spots on the middle line have been removed. They were never specifically referred to in the rules.

A referee can still choose to place the ball where these spots used to be.

#6: Goalkeeper catch time (RC-12.0.2)

The time during which the goalkeeper can fully enclose the ball (i.e. enclose more than one third of the ball, RC-12.0.1) has been extended to 6 seconds.

#7: Human player (Competition Rule 7)

Teams can use one human player instead of a robot player. There are some limitations for the human, to ensure safety and fair play, these are listed in *Competition Rule 7*.