

# Meeting Minutes - RoboCup 2016 Rule Discussion

Represented teams: 16

Minute taker: Maike Paetzel

All voting results are reported as: (in favor / against / abstention)

## **1) Last year's rule changes**

The following rule changes were agreed on last year:

- Disallow usage of compass as sensor
- Push recovery: randomize pushes
- Push recovery: robot must walk in place
- Push recovery: take robot weight into account
- use scoring challenge as used in China instead of coin toss [implemented in 2016 rules]
- introduce a minimal arm length for the robots
- Change teen size teams to 3 vs 3
- Change the fields so the lines of all leagues are equal [implemented in 2016 rules]
- robot certification should include the demonstration of abilities to walk (all sub-leagues) and stand up (kid and teen size)

The rule changes agreed on last year were read to and confirmed by the team leaders. No additional discussion of these rule changes occurred.

## **2) Proposal to encourage autonomous positioning**

Motivation: Current rules punish teams with autonomous positioning, because robots of the other team can be positioned in a way they can block goal posts and attacking robots.

Proposal 1: All robots walk in from behind the goal line, except of the goal keeper who is manually positioned.

Comment: Autonomous positioning is very difficult, but rules should be realistic for the teams, there have been many difficult rule changes in the last years.

Proposal 2: Goal keeper plus one additional robot are manually positioned, all others run in from the field side.

Proposal 3: Apply some rules not for all games in the tournament, but only apply during late stages of the tournament.

Comment: This might knock out good teams in the beginning that would have better chances with the more difficult rules.

Proposal 4: Have more games with easier rules for teams who lost in the competition.

Proposal 5: Let teams decide from where the robots enter.

12 teams indicate they would be able to implement (at least basic) autonomous positioning by next year.

Vote:

1. Introduce automated positioning to the rules.  
(12/2/1) **[Approved]**
2. Where to initially place the robot at the border of the field?  
Anywhere (not in the goal, only where it is physically possible, on the team's own side): 7 **[Approved]**  
From the side: 3 **[Rejected]**  
Behind the goal line: 5 **[Rejected]**
3. Which robots may be positioned manual?  
Goal keeper: (12/2/-) **[Approved]**  
Additional defender: (5/9/2) **[Rejected]**  
Striker (if kick-off): (11/4/-) **[Approved]**  
Striker (if drop ball): (11/-/4) **[Approved]**
4. Change the rules during the tournament?  
(2/10/4) **[Rejected]**

### 3) Converting to FIFA rules

Motivation: The content of the rules will not change, but we will have to play with FIFA rules by 2030 anyway and with the FIFA rules we will see more easily which rules still need to be applied.

Comment: It is requested that the TC provides a document with the rule changes that are not only formatting changes, as they cannot easily be marked in the new document.

Answer: The TC will provide the document, but it will not be an official document. However, team leaders are asked to check the rules carefully.

Comment: We should consider the FIFA rule changes every year and decide how to apply them to our own rules so the rule books don't diverge.

Concerns are raised on the rule length and the training time for the referees.

Comment: It is requested to upload the rules to a git repository to allow discussions and to easily see changes in the document.

Answer: The TC will try to implement that.

Drew Noakes from Team Bold Hearts volunteers to convert the rule document from OpenOffice to LaTeX.

Vote:

1. Using the current FIFA rules as a basis for the 2017 rules.  
(13/1/1) **[Approved]**

#### **4) Free Kicks**

Motivation: Currently the penalty rules (removal penalty) are more according to hockey than soccer. As we have to move towards soccer rules, it would be good to start with a simplified version for 2017.

Proposal 1: No robot is removed. There is a free kick button in the game controller. Once this is clicked the team committed the foul have 15 seconds to move at least 50cm away from the ball. The other team is allowed to move as well to get a better position for the free kick. All robots who did not move away for at least 50cm will be removed after the 15 seconds.

Proposal 2: As proposal 1, but the robot which committed the foul is removed.

Comment: Incapable players will be removed directly anyway, in both proposals.

Comment: Another possible implementation would not remove the players which didn't move away in time but position them manually 50cm away.

Comment: The rule should be implemented so it challenges the good teams but doesn't punish inexperienced teams too hard.

Vote:

1. Moving towards a simplified free kick version in the 2017 rules.  
(7/4/3) **[Approved]**

#### **5) Mandatory handle for kid and teen size robots**

Motivation: Robots could then be picked up by referees during the game.

Vote:

1. Adding a mandatory handle to all kid and teen size robots.  
(12/-1) **[Approved]**

#### **6) Referees are allowed to touch and move the team's robots (kid and teen)**

Motivation: Teams are less able to cheat when putting in their robots or unangling them.

Vote:

1. The kid and teen size leagues should move in the direction where referees are allowed to handle the team's robots during game play.  
(11/1/2) **[Approved]**

## **7) Introduction of a Drop-In game**

Motivation: Lower the barrier of entry for new teams to enter the league and encourage exchange and cooperative play between teams from different universities.

Vote:

1. The TC should work on introducing a scheme for Drop-In games even if this might require teams participating in the regular tournament to also participate in Drop-In games.  
*(6/-/7) [Approved]*

## **8) Qualify only 16 teams for 2017**

Motivation: Qualifying fewer teams accounts for the general trend in the league and would make the organization of the league easier, especially with the introduction of Drop-In games.

Vote:

1. The number of teams qualified for the regular 2017 tournament shall be reduced to 16.  
*(4/4/4) [Rejected]*

## **9) Move to 1 vs. 1 in adult size**

Motivation: The games are more challenging and interesting if a real game is played in adult size.

Only adult size teams and teams who consider participating in the adult size in the near future are encouraged to vote.

Vote:

1. Introduce a regular 1 vs 1 game play in adult size league while still allowing the robot handlers on the field.  
*(4/1/2) [Approved]*

## **10) Use the teen/adult size goals in kid size**

Motivation: Simplifying the organization, the goal is already small for the large kid size robots.

Vote:

1. The teen/adult size goals are used in kid size, allowing all leagues to play on exactly the same fields.  
*(8/1/3) [Approved]*

### **11) Change the rules to gender neutral language**

Motivation: Currently the FIFA rules only talk about male referees. They mention in the beginning that they refer to all referees by the male notation. However, gender neutral ways would be even more progressive.

Proposal 1: Use they as a gender neutral singular

Proposal 2: Use s/he

Proposal 3: Only talk about “the referee”

Vote:

1. The TC frame the new FIFA rules using a gender neutral language (no specific proposal voted on).  
(14/-/-) [**Approved**]

### **12) Disallow to provide information to the robot it should not have when playing autonomously**

Motivation: This year it was brought to the TC's and OC's attention that teams might provide specific information about where the robot is placed on the field, the current ball position, and the position of the other robots etc. This is similar to manual localization and should not be allowed in autonomous game play.

Comment: All information should be allowed which can be transferred verbally between a human coach and player in a real match.

Vote:

1. Teams may only provide information to the robots which do not directly cover the current game state and do reduce the need for autonomy of the robots.  
(10/-/3) [**Approved**]

### **13) General comments**

Comment: We should always have only high level discussion during the team leader meeting and discuss the details on the mailing list.

Comment: Everyone is encourage to send around proposals before the meeting on the mailing list so teams can prepare.

Comment: The penalty for missing a referee duty should be written in the rules.