

ABU Robocon 2020 Suva, Fiji

FAQ2 December 13, 2019

FAQ3 February 18, 2020

FAQ:

Please send your questions after carefully reading the Rulebook. Thank you in advance for your cooperation.

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FAQ Updated Record

FAQ1 Released on October 25, 2019

Announcing answers for most frequently asked questions up to October 10.

FAQ2 Released on December 13, 2019

Announcing answers for most frequently asked questions up to November 26.

FAQ3 Released on February 18, 2020

Announcing answers for most frequently asked questions up to Feb 13.

The most frequently asked questions about kicks are listed below. Oct 25, 2019

Supplement 1 for Kick

About the process from 'try' to 'kick'

1. If the team moves to the goal kick process after a try, the team member must declare to the referee the number of kick ball/s to pick up and get permission. This is called "kick declaration". The process from "kick declaration" to the end of goal kick is called "goal kick process".

* The "kick declaration" can be made at the following three timing:

1) Immediately after a new successful try

2) At retry ([However, you cannot announce 'Kick Declaration' while TR is holding a Try Ball](#)) Added on Dec 13 2019.

3) Immediately after kicking all the picked up ball/s

2. Team members pick up kick ball/s.

3. Teams must choose one of the following;

I. : Place all kick balls picked up by team members under article 2 in KZ.

II. : All kick balls picked up by team members under article 2 must be loaded into either PR or TR (one robot only).

4. In both cases of I and II of article 3, the team must report to the referee and get permission before starting the robot.

5. The robot enters the KZ and performs a goal kick by fulfilling rule book 0-20 (a) to (d) on page 8. At this time, one robot must kick all kick balls picked up a time.

6. The team can move on to the next action only after kicking all the balls picked up under the article 2.

Supplement 2 for Kick

About the number of kick balls that can be secured by kick declaration

The right to use kick ball/s acquired by successful try/s can be exercised up to 3 times at the same time. However, the upper limit is the number of kick balls remaining in the ball rack at the time of the kick declaration. Even if balls remain in the ball rack, the balls which were confirmed by 'Kick Declaration' previously by the opponent team cannot be used.

0. Terms and Definitions

FAQ #	Question	Answer
0.6-1	<p>Are the Try Spots and Pass Robot Start Zone considered to be inside of the Passing Zone?</p> <p>Is the Try Robot Start Zone considered to be inside of the Receiving Zone?</p>	<p>The Try Spots are not inside of the Passing Zone.</p> <p>The PRSZ is inside of the Passing Zone.</p> <p>The TRSZ is inside of the Receiving Zone.</p>
0.11-1	<p>Are the square steel tubes of 10mmx10mm in the Try Spot considered as a part of the Border Zone?</p>	<p>No, they are not a part of the Border Zone. TR is allowed to touch it.</p>
0.15-1	<p>Does Rulebook, Terms and Conditions 0.15 apply to the fence which divides the Passing Zone and Kicking Zone? Specifically, can the robot in the Passing Zone touch the side of the fence of the Kicking Zone? If not, what is allowed for the robot which is grounded with both the Passing Zone and Kicking Zone?</p>	<p>Yes, the Rulebook 0.15 applies to the fence which divides the Passing Zone and Kicking Zone. Therefore the robot is not allowed to touch the side of the fence opposite to itself. When the robot is grounded with both the Passing Zone and the Kicking Zone, the robot cannot touch either side of the fence.</p>
0.15-2	<p>Regarding Rulebook 0.15, can robots cross over the fence?</p>	<p>No, the robots cannot cross over the fence.</p>
0.19-1	<p>Regarding Rulebook, Terms and Conditions 0.19 Try c), if a Try Ball comes out of a Try Spot, will the try be invalidated?</p> <p>For instance, will the opponent's try be invalidated if we take out their Try Ball from the Try Spot?</p>	<p>It doesn't affect the score or the right of the ball if the ball leaves the Try Spot after the try is confirmed. When your ball leaves the Try Spot pushed by opponent's tee or ball, the action will be considered as the same as the opponent's ball landed on the your field. Therefore you get 10 points.</p> <p>When your ball leaves the Try Spot by the contact of the opponent's robot, the action will be considered as the same as the robot invading your team's space above. Therefore opponent receives foul.</p>
0.19-2	<p>Regarding Rulebook Terms and Conditions 0.19 Try c), what does it mean to 'remain in the Try Spot'? What about if the ball is in contact with the inside of the Try Spot or a part of the ball protrudes into the air?</p>	<p>The ball in those positions are considered to 'remain in the Try Spot'.</p>

0-19-3	Regarding Rulebook 0.19, is it considered to 'come in contact with the ball' if a string attached to the robot comes in contact with the ball during a try?	Yes, the string attached to the robot is the part of the robot.
0.20-1	Regarding Rulebook 0.20 Kick, will it be regarded as a successful goal as long as the ball passes over the cross bar regardless of the height?	There is no height limit as long as the ball passes over the cross bar.
0.20-2	The term and definition a) of Rulebook 0.20 Kick says, 'Before starting the kicking process, the orthogonal projection to the field of the robot must not overlap the orthogonal projection to the field of the ball & tee.' If the orthographic projections of the ball and tee on the field do not overlap, is it OK to have the ball and tee inside the polygon surrounded by the orthographic projection of the robot?	Yes, it is acceptable.
0.20-3	Is it allowed for the robot to touch the tee during the Kicking Process? If allowed, can we fix the tee or lift the tee?	If the robot should touch the tee or ball after satisfying the conditions mentioned under the Rulebook 20.a) before kicking, you must satisfy the conditions under the Rulebook 20. a) again. It is not allowed to fix the tee or the lift the tee.
0.20-4	Can we kick the ball and tee at the same time?	Yes, you can.
0.20-5	The Rulebook 0.20 Kick prohibits the use of 'soft and flexible materials'. Can you raise specific examples?	We don't specify materials which can or cannot be used. If you are unsure, please send a visual image to the Contest Committee.
0.21-1	Missing number	
0.21-2	Does a Kick Ball need to pass through completely inside the conversion post? If the ball hit the top of the conversion post then went through the conversion post, is it considered as a successful goal kick?	If the kicked ball passes through a position higher than the full length of the conversion post, the kick is considered successful if the referee determines that it has passed inside the "centerline of each post". If the ball went through the conversion post after hitting the post, it will also be considered as a successful kick.

1. Game Procedure and Competition Tasks

1.2 Deployment of the robots and team members

FAQ #	Question	Answer
1.2-1	For Rule 1.2.e, please provide details on whether the area around the Try Spot and the Try Ball rack can be grounded or intruded in the space above.	<p>Try Spots are included in each team field. Therefore, you cannot enter the opponent's Try Spots including the space above.</p> <p>The fence that separates your own Try Spot from the opponent's Try Spot is regarded as a border zone and you cannot enter the space above and touch the ground.</p> <p>With regard to your own Try Ball Rack, you can enter the space above and touch the ground.</p>

1.3 Kick Balls and Try Balls

FAQ #	Question	Answer
1.3-1	Can a team member touch and adjust the Try Balls placed in the Ball Rack before the game starts?	No. Team members can ask for a retry to touch and adjust balls after the game starts.
1.3-2	How will the Try Balls be arranged on the Ball Rack?	For every hole of the Ball Rack, one Try Ball will be placed in the way that the major axis of the ellipse becomes almost vertical.
1.3-3	While picking up a Try Ball, can PR make contact with other Try Ball? What happens if the ball falls from the Rack while picking up?	<p>PR may touch other Try Ball.</p> <p>If the ball falls from the Ball Rack by contact, please ask for a retry and team member should put the ball back to the Rack. Or you can just leave the fallen ball as it is.</p>

1.5 Task in the Receiving Zone

FAQ #	Question	Answer
1.5-1	Do both teams have to stop when the referee picks up the Try Ball that entered opponent's field? Or is it only for the team whose referee has entered the field?	The game will continue even if referee enters the field.

1.6 Tasks in the Goal Kick

FAQ #	Question	Answer
1.6-1	Regarding "Rule Book 1.6.d) ii.", is it OK to set a ball and a tee in the kicking zone with the kick ball in contact with the tee inside the robot?	Yes, it is allowed.
1.6-2	As for Rulebook 1.6, can we put away the tee after a kick?	You can leave the tee or put away as long as it is in your team's zone. If the tee enters the opponent team's zone, 10 points will be added to the opponent team as with the Kick Ball, and the tee will be picked up by a referee. The tee cannot be used again.
1.6-3	Regarding rule book 1.6 k), are there any means to move to the next action if all Kick Balls cannot be kicked?	Team members can declare the end of the Goal Kick Process and retry to move on to the next action. At this time, if there is a Kick Ball secured in the kick declaration but the kick has not been completed, the ball must be returned to the Kick Ball Rack.
1.6-4	Regarding rule book 1.6 d) ii, if a robot loaded with Kick Balls and tees retries after setting the ball in the field, is it possible for team members to adjust the ball set in the field?	Yes, it is possible.
1.6-5	Regarding "Rule Book 1.6-d-ii", is it OK that a robot which does not make a Goal Kick enters the space above the Kicking Zone and places a tee?	Only one robot can set the ball and tee in one Goal Kick Process and that same robot must make a Goal Kick.

1.6-6	Regarding Rulebook 1.6, after a Goal Kick, can we pick up the tee which has been used in our team area and reuse it for another goal kick?	You may leave the tee which fell in your team area as it is. Please collect the fallen tee in your team area when you finish the Kicking Process. If you wish to pick up the tee at any other time, you need to ask for a retry. You may reuse the picked up tee.
1.6-7	Can we kick multiple balls at a time?	No. You must kick one ball at a time.
1.6-8	Should we pick up the ball before kicking the next ball if the first kicked ball fell in our team area while trying to kick multiple balls in a single kicking process?	No you don't have to do that. Please collect the fallen ball in your team area when you finish the kicking process.
1.6-9	As for the Rulebook 1.6(d), can the stationary robot help a team member to find the rights spot to place a ball by using laser pointer and the like?	Yes, you can as long as it does not violate the safety regulations of the Rulebook.
1.6-10	Missing Number	
1.6-11	What are the specific conditions for the goal from each Kicking Zone such as the position of the balls and robots?	The score by the goal kick will be based on the position where the tee is placed at the time of a kick and the positon of the robot does not matter as long as the robot is in KZ. If the tee is grounded across multiple zones, the lower score will be taken.
1.6-12	When the Kick Ball is placed in the KZ, is it OK if the part of it protrudes into the space above the fence, Passing Zone and Receiving Zone?	It is OK.
1.6-13	What will be the judge if two kicked balls collided? If our team's ball lands on opponent's field, will they get 10 points?	Once the Kick Ball passes through the conversion posts, points will be awarded according to the Rulebook. If your team's ball lands on the opponent's field, they will not get any points. The ball will be picked up by a referee and it cannot be used again in the game.
1.6-13	Regarding Rulebook 1.6 (f), if the kicked ball hit the other robot which didn't kick the ball then passed through the crossbar, will it be regarded as a successful kick?	No it won't be regarded as a successful kick. It will be treated as a failed kick.

1.6-14	<p>During the Goal Kick Process, what happens if the robot carrying Kick Balls and Tees to KZ but dropped them:</p> <ol style="list-style-type: none"> 1. In our own team's field? 2. In the opponent team's field? 3. Outside of the field? 	<p>The answer will be as follows:</p> <ol style="list-style-type: none"> 1. If the Kick Ball is dropped in your own team's field before a kick, a team member must ask for retry at any time and reload the ball into the robot. If the ball is left on the own team's field, you cannot finish the Kicking Process. 2. If the Kick Ball is dropped in the opponent team's field before a kick, the opponent team will get 10 points and that ball cannot be used again in the game. 3. If the ball is dropped outside of the field before a kick, it will be a compulsory retry and a team member must pick up the ball and reload it into the robot.
1.6-15	<p>As for Rulebook 1.6(d), is it allowed for multiple team members to set the Kick Balls and Tees, load them onto the robot and touch the robot inside of the Start Zone?</p>	<p>Yes, it is allowed.</p>
1.6-16	<p>Rulebook 1.6 (d) ii says 'The other robot must stay out of the Kicking Zone throughout the Goal Kick Process'. Does it include the time when a team member is loading balls and tees into the robot?</p>	<p>Yes, it does.</p> <p>The robot which doesn't make goal kick must stay outside of the Kicking Zone while the other robot performs the Goal Kick Process.</p>
1.6-17	<p>Does "enter" in the Rule 1.6(g) include the space above the opponent team's field? If Kick Ball/s enter the space above of the opponent team, will 10 points be given for the opponent team?</p>	<p>If your Kick Ball makes contact with the opponent's field or objects on the field or team members or robots in the field, 10 points will be added to the opponent team. 10 points will NOT be added to the opponent by invading the space above. This also applies for Tee.</p>

1.7 Others

1.7-1	<p>As for Rulebook 1.7(a), if a team member/s sets Kick Balls on the field, can they adjust their robot before kicking?</p>	<p>Yes, they can. Team member/s can adjust their robot inside of the Start Zone while the other team member is setting Kick Balls in the field.</p>
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2. Retries of the Robots

FAQ #	Question	Answer
2-1	Regarding “Rule Book 4.2 Retry d)”, Is there a specific place to return the ball? With a retry, can I touch the Try Ball on the Try Ball Rack and rearrange and/or alignment of the balls?	You can place the Try Ball back anywhere. You may ask for a retry and adjust your own ball in the Try Ball Rack.
2-2	As for Rulebook 2.e), what does it mean when a ‘ball is dropped’? For example, will it be considered as ‘dropped’ if PR rolls a Try Ball?	The ball rolled by PR will not be considered as ‘dropped’ if it is successfully received by TR. It will be a compulsive retry if TR dropped the ball in the Kicking Zone or the Passing Zone after it has successfully received the ball.
2-3	What is considered “dropped” as stated in the Rulebook 2-e)? For example, can a Try Robot carry a Try Ball by rolling?	Once the Try Ball held by the Try Robot touches the field, it is considered "dropped" at that point.

3. Deciding of the winner

FAQ #	Question	Answer
3-1	How is the success of each task determined?	Basically, the judgment is made visually by the referee. There is no judgment by video. However, in case of doubt within the referees, the video may be helpful. The result could be a rematch.

4. Robots

FAQ #	Question	Answer
4.2-1	Is it allowed to change the mechanism of the robot for each game in order to match the red and blue fields in Rule Book 4.2?	If it is recognized that the mechanism is exactly the same except that it is plane symmetry , (line symmetry → plane symmetry , Revised on Dec 13 2019.) the line-symmetric mechanism can be prepared for each match with the aim of dealing with the red and blue fields.

4.2-2	Regarding FAQ4.2-1, are there any restrictions on size and weight of the “plane symmetry mechanism”?	There is no restrictions to the “plane symmetry mechanism” itself. However, the total weight of the robot must be 50 kg or less, including all “plane symmetry mechanism”.
4.3-1	Is it allowed to press the robot against the ground using method other than suction (such as propeller) mentioned in the Rulebook 4.3?	No, it’s not allowed.
4.7-1	Can PR and TR communicate?	Yes, they can.
4.7-2	If the robot has multiple mechanisms which exceed the size limit if fully extended at the same time, but it won’t be fully extended during the game. Will it still violate the rules?	No, it won’t violate the rules. Please do not exceed the size limit during the game.

5.6 Fouls and Disqualification

FAQ #	Question	Answer
5-1	Regarding the Rulebook 5.Foul e), what is the state of ‘land and comes to a stop on the Border Zone’? For instance, will it be a foul if a ball, after a successful try, rolls and rests against the Border Zone.	‘Lands and comes to a stop on the Border Zone’ means the top surface of the Border Zone. It is not a foul if the ball touches the side of the Border Zone.
6-1	Regarding Rulebook 6.a), what happens if we accidentally damage the field and/or robots by the kick?	You will be disqualified if you damage the field and/or robots.

7.8 Safety and Teams

FAQ #	Question	Answer
7-1	Can a team member throw a Kick Ball when passing the ball between the team members?	Yes, you can. However if the ball enters opponent’s field and/or damage their robots, you will penalized in the same way as the robot.

7-2	<p>Can team members enter the field when the automatic robot is moving? Is it necessary to prepare a remote emergency stop device (equivalent to the “remote stop switch” named in the FAQ for ABU Robocon 2019) in addition to the circuit-like emergency stop switch attached to the robot body?</p>	<p>In principle, members should not enter the field while the robots are moving automatically. However, in an emergency, enter the field immediately and stop the robot. A remote stop switch is not required, but is desirable from a safety point of view.</p> <p>The "remote stop switch" may be software-dependent. However, the emergency stop button attached to the main unit does not depend on software, and should be implemented only with the actual circuit.</p>
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9. Others

FAQ #	Question	Answer
9-1	Can I use a jig? Please let us know when we can and cannot use the jig.	<p>The use of jigs is only allowed in the Start Zone during setting or retry.</p> <p>The use of jigs to kick ball and try balls is not allowed.</p>