



Robocon 2021 Hong Kong Contest

Local FAQ Version 4  
Last update: 08 June 2021

Questions 1-16 are raised during the 1<sup>st</sup> Contestants Briefing held on 21 November 2020.

Questions 17-24 are raised during the 2<sup>nd</sup> Contestants Briefing held on 6 February 2021.

Questions 25-32 are raised after the 2<sup>nd</sup> Contestants Briefing as of 12 May 2021.

Questions 33-39 are raised during the 3<sup>rd</sup> Contestants Briefing as of 5 June 2021.

	Questions	Answers
1	<p>Is there a fixed position on the placement of the arrowhead?</p> <p>The rule book has mentioned team members are allowed to replenish the arrows by themselves but it is not clear how the arrows should be placed.</p>	<p>The Arrow must be arranged in the Arrow Rack in the way as the arrowhead is placed downward on the rubber ring of the lower beam, the plume is upward, and the body is leaning against the groove of the upper beam.</p>
2	<p>Can TR pick up the arrows from the arrow rack?</p>	<p>Yes, according to the rulebook, after the five (5) Arrows preloaded on TR and/or DR are used up, TR can:</p> <ul style="list-style-type: none"> <li>I. Pick up the Arrows from its team's Arrow Rack; or</li> <li>II. Pick up the Arrows that landed on the ground of the Outer Area; or</li> <li>III. Directly receive the Arrows delivered by DR.</li> </ul> <p><b>Addition to the answer, updated on 08 June 2021:</b></p> <p>According to ABU Q&amp;A3, Q2.4-18 and Q2.4-36</p> <p><i>DR's intercepting with pre-loaded arrows is also considered as "use". That is, if four pre-loaded arrows have been thrown out by robots, while DR is using a preloaded arrow to intercept the arrow by opponent in the inner area, at this time, robot can pick up arrows from the arrow rack.</i></p>
3	<p>According to the rulebook, DR can perform defensive tasks with waving the arrow to intercept the opponent teams' thrown arrow. Is it possible to wave the arrow as if it were a 'windmill'?</p>	<p>DR can perform defensive tasks in waving the arrow as if it were a 'windmill'.</p>
4	<p>According to the rulebook, when DR runs into the inner area, its height must be less than 1000mm. Does this include the arrow when the DR is waving to defense?</p>	<p>The arrow should not be counted.</p>



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5	Can DR and TR throw the arrow at the same time?	Yes, DR and TR can throw the arrow at the same time. They can also aim at the same spot at the same time or consecutively.
6	We have played around with the official arrows and found out the arrowhead is falling off quite easily. The rulebook has mentioned that teams will be disqualified if there is damage to the game object, will this be considered as a reason for disqualification?	If the arrows are fragile from the start, then students should not be disqualified. But if teams are found to damage the game object intentionally, they may be disqualified.
7	In the case of bumps and crashes, to the pot tables, baffles and opponents, what will happen if we really created some damages to the game objects?	If teams are found to damage the game object intentionally, they may be disqualified. The referee can also request teams to Retry compulsorily.
8	We would like to know the specification of the arrow rack.	Please download the Figures on the GAME RULES page. 05.00 is the drawing of the Arrow Rack.
9	Referring to Rulebook 2.4.2, may we know the definition of the word "impact"? For instance, if one team is holding on to the handle of the pot table, can the other team still spin the table?	<p>According to rule book 7.2 <i>"All robots must be designed and built as to cause no damage to any robots of the opposing teams or the field."</i></p> <p>If opponent DR is spinning the table, your DR can stop the spinning table, but be aware that if your robot is damaged when it stops the spinning table, the opponent is not responsible.</p> <p>The orthographic projection of the rotating pot table sweeps a circular area on the ground. For convenience, it can be called as a forbidden area. If the robot A enters the forbidden area before robot B holds the handle and start turning the pot table, and robot A is hit by the rotating table, then the robot B fouls. If the robot A try to enter the forbidden area while the robot B is turning the pot table, and the robot A is hit, then neither robot is foul regardless whether the robot A is damaged or not.</p>
10	According to the rulebook 2.3, the robots are pre-loaded with 5 arrows. 2.4.1, mentioned, "when the pre-loaded arrows are used up, TR can pick up the arrows from its team's arrow rack". Does this refer to both robots' preloaded arrows being used up or referring to either DR or TR having used up its preloaded arrows?	<p><del>Either one robot used up.</del></p> <p>2.4.1. C Only after the five Arrows preloaded on TR <u>and/or</u> AR are used up.</p> <p>DR's intercepting with preloaded arrows is also considered as "use". That is, if four preloaded arrows have been thrown out by robots, while DR is using a preloaded arrow to intercept the arrow thrown by an opponent, at this time, the robot can pick up arrows from the arrow rack.</p> <p><b>Addition to the answer, updated on 08 June 2021:</b></p> <p>According to ABU Q&amp;A3, Q2.4-18 and Q2.4-36</p> <p><i>DR's intercepting with pre-loaded arrows is also considered as "use". That is, if four pre-loaded arrows have been thrown out by robots, while DR is using a preloaded arrow to intercept the arrow by opponent in the inner area, at this time, robot can pick up arrows from the arrow rack.</i></p>



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11	According to the rulebook 2.4.1, b)i, "TR can only throw 1 arrow each time, Before the arrow enters into a pot or lands on the ground, it can't throw out the next arrow." If we are using an autonomous robot, does this rule apply? What are the consequences?	Yes. Since no rule states otherwise for an autonomous robot.
12	According to the rulebook 2.4.1, b)ii, "If an arrow is thrown into a certain pot, TR must immediately turn to another pot" Does it mean the arrow thrown must land inside the pot before the TR aims for another pot?	If TR throws an arrow successfully in the first pot and throws the next arrow towards some other pot which is Unsuccessful, it can now throw the next arrow in the first pot. As long as the arrow is thrown into next pot or falls anywhere whatever the reasons are, TR throws the next arrow into the previous pot again is not considered as continuous entering into the same pot.  After the robot throws an arrow to another pot, whether or not the arrow enters into the pot, the robot can re-throw an arrow to the pot that has already been thrown an arrow into.
13	Can the robots touch the baffle? Is there a specific side that can't be touched?	Updated answer on 17 March: Rulebook 2.4.1 e) "TR can only extend into the space above the outside the Fence for a short period." The definition of short period has been defined as 3 seconds.
14	Can DR hold onto more than one pot table handles at a time?	Updated answer on 17 March: Yes, your robot can hold more than one pot table at a time. Please see Q21 for more details.
15	Can the robot wrap the pot table to stop the pot table from spinning?	If the opponent's robot holds the handle and turns the pot table first, and your robot tries to touch the rotating pot table, it will be considered as that your robot takes the risk being damaged itself.  If the handles are damaged while the robots are turning the pot table, the referee will decide according to the circumstances. If teams are found to damage the game object intentionally, they may be disqualified.
16	If we are developing an arrow holder on the robot, can we launch the holder together with the arrow? n	No arrow holders are allowed.
17	In what aspect will the committee judge if the 2 robots from the same University are "different"? How many committee members will be vetting the robots?	TAC has developed a similarity checklist. The checklist will be shared separately.
18	Is the Hong Kong Competition following the ABU Real Game Rules? Do we need to accommodate the ABU Online Game Rules as well?	The Robocon Hong Kong 2021 Competition will follow the ABU Real Game Rules.
19	What happens if the game field members of the opponent's team accidentally block the trajectory of the shooting, or accidentally blocks an arrow that is already in the air, when they are retrying the DR in inner area?	ABU answer: Team members who are responsible for DR retry and enter the inner area should be careful to keep away from the game facilities and avoid the flying arrows in the air, while the team members who operate robots outside the game field should not deliberately throw arrows to the members on the game field. In this way, the probability of accidentally blocking the arrow is very low. Even if blocking, no foul.



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		Updated answer on 17 May: The Hong Kong Organiser has agreed to comply with ABU official's answer to this question.
20	It is understood that after using up the preloaded arrows, the robot can go to the arrow rack to get 5 arrows. Are we allowed to get 3 rounds of arrows consecutively, i.e. the robot holds 15 arrows at the same time?  Reference: Rulebook 2.3d) Rulebook 2.4.1c) ABU FAQ Q2.4-20) Q2 ABU FAQ Q2.4-14)	Yes, you can get 15 arrows from the Arrow rack consecutively.
21	It was mentioned in local rules FAQ that holding more than one table is considered bad sportsmanship. Does that mean we are not allowed to do so, or just that it is not recommended? We saw that the game rules this year specifically mentioned that during the game, the robots does not have horizontal dimension limit, and that is why we would like to know it extending horizontally to hold multiple tables simultaneously is allowed.  Reference: Local FAQ Q14 Rulebook 4.6b)	The rule 4.6 indeed does not limit the horizontal dimensions after the robot starts. So, if your robot can grab multiple pot tables at the same time, let it grab it! But, there is a saying, "Big ship is difficult to make U-turn", hope your robot can be flexibly manipulated.
22	May we know are retries of the two robots considered separately? i.e. Is it possible to have DR retry while TR continues with the tasks, or vice versa, is it possible to have TR retry while DR continues with the tasks?	In most cases, a robot fouls or has a fault, it needs to retry, and another robot continues to complete its own task, not affected by the retried robot. If a robot makes a false start at the start of the game, the team's two robots have to all go back to their respective start zones and try again.
23	According to Q5-7, "The orthographic projection of the rotating pot table sweeps a circular area on the ground. For convenience, it can be called as a forbidden area", while Q5.4 mentioned, "If Team A's DR is spinning the table, Team B's DR CAN stop the spinning table". Does the handle count as a part of the forbidden zone?	Both questions are interrelated and all involve robot fouls, but are not related to terms and definitions. You categorize the first question as term and definition, probably because in our answer there is a new term — forbidden area. You misunderstood, because there is no term "forbidden area" in the Section 1 of the rulebook. As you can see, when we reply to the Q5-7, only for convenience, the circular area swept by the orthographic projection of the rotating pot table is called as a forbidden area. This phrase only makes sense in our answer.
24	According to Q5-7, "If the robot A try to enter the forbidden area while the robot B is turning the pot table, and the robot A is hit, then neither robot is foul regardless whether the robot A is damaged or not". If Robot B is spinning the pot table, Robot A grabbed the handle in the forbidden area and damaged the Robot B. Whose fault will that be?	We did not prohibit robots from entering this so-called forbidden area. On the contrary, in our reply to Q5-7, we assumed a situation — the robot A tries to enter the forbidden area, then we did not say that the robot A fouls. And, there is another situation in the reply to the Q5-7- the robot B is turning the pot table, similarly, we did not say that the robot B fouls. Both cases indicate that the robot is allowed to enter or extend into the forbidden area and its above, for example, the robot grabs the handle to turn the pot table.



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25	As this year is shooting arrow, consider Team A is fully automatic and Team B needs to retry after getting in the defense zone. Team A members need to get in the defense zone. However, it will affect the Team B performance and it is difficult /unfair for Team B to stop for Team A retry. Any Retry in the defense zone will affect the performance of the other team (since the shooting of pots are inside the other team area)	Please refer to Question 19.
26	If team A and team B are holding the turning table and compete with each other, after some time the turning table was damaged and it is difficult to judge which team should be responsible for the damage.	<p>Which robot grab after and if damage, that robot is responsible for the damage and disqualified.</p> <p>ABU Q&amp;A Q5-6) If both robot holds the handle of the turning table and the robot which later hold the handle breaks while both robots is trying to turn the table in opposite directions, will the robot which holds the handle first be disqualified or considered as violation?</p> <p>A: If the opponent's robot holds the handle and turns the pot table first, and your robot tries to touch the rotating pot table, it will be considered as that your robot takes the risk being damaged itself. (How about the turning table?)</p> <p><i>A team will be disqualified if it takes any of following actions during the game:</i></p> <ol style="list-style-type: none"> <li>1. <i>The design and build of the robot are not in accordance with the regulations in Section 4 and Section 7.</i></li> <li>2. <b><i>The team intentionally damages or tries to damage the field, facilities, game objects or opponent's robots.</i></b></li> <li>3. <i>The team performs any acts that are not in the spirit of fair play.</i></li> <li>4. <i>The team fails to obey instructions or warning issued by referees.</i></li> </ol> <p>Please refer to Question 23.</p>
27	If one team shoots the arrow in a violation way (like shooting the same pot/passing out the field) but the arrow gets in. (Although we believe if we have enough judges, this case should can handle)	If the throw is initially a violation throw then this should not be counted.
28	Team A shoot to pot 1 and gets in, then Team A try to aim and shoot to pot 3 but it miss and bounce back to pot 1. Does it count? (As technically Team A has not violated any rules)	<p><del>If teams intentionally target at the same pot, the arrow will not be counted as stated in rulebook. But if the arrow is being bounced into or dropped into the pot because of opponent's defense, it should be scored.</del></p> <p><b>Updated answer on 21 May:</b></p> <p>Given: the team has first landed an arrow into POT 1, the team then launched an arrow targeting POT 2.</p> <ol style="list-style-type: none"> <li>1) If the arrow hit the opponent's DR and then enters into any of your pots other than POT1, YOU SCORE</li> <li>2) If the arrow hit the your DR and then enters into any of your pots, NO SCORE</li> <li>3) If the arrow hit the opponent's DR and then enters POT1, NO SCORE</li> </ol>



		<p><b>Addition to the answer, updated on 08 June 2021:</b></p> <p>According to ABU Q&amp;A3, Q2.6-4</p> <p><i>If an arrow hits DR of the other team or the same team who has shot it and goes into the pot then is it counted as a valid point?</i></p> <p><i>A: If the arrow thrown by your TR hits the opponent's DR and then enters into your pot, the score is valid, and if it hits your own DR and then enters into your pot, the score is invalid.</i></p> <p>According to ABU Q&amp;A3, Q2.6-4</p> <p><i>Q5-1) Is it a violation, if the nth arrow thrown by our robot enters in the same POT (in which (n-1th) arrow was thrown) due to Interference of the opponent's DR?</i></p> <p><i>A: Yes, it is violation, because these two Arrows are thrown by your robot in succession.</i></p>
29	Member can manually put an arrow on the robot during retry, if the arrow jammed, can we relocate the arrow to any position on the robot?	<p>Yes, members can relocate the arrow to any position on the robot.</p> <p>According to ABU Rulebook 2.5 d), <i>during retry, the team members can only adjust and change the position of the Arrows carried on the robot.</i></p> <p><b>Confirmed by ABU on 21 May 2021:</b></p> <p>Q: Regarding Rule 2.5 d), if the arrow is jammed and the team calls for retry, can they move the arrow to the launcher directly? Or are they only allowed to adjust the position of the arrow at where it is jammed?</p> <p>A: retry 時，只要是機器人上的箭，隊員可以任意移動，包括把它放到發射機上。</p>

30	If an arrow touches the ground and robot at the same time, can use called “retry” and pick up the arrow?	<p>No, if the arrow touches the ground, team cannot retry and pick up the arrow.</p> <p>According to ABU FAQ3, Q2.5-2) <i>In the Rule 2.5.d), there is "During retry, the team members can adjust and change the position of the Arrows carried on the robot." If TR is in contact with an Arrow on the ground when a team applies for a retry, can team members load the arrow on the robot during retry, according to Rule 2.5.d)?</i> A: It is not allowed. The arrow you mentioned is on the ground but not on the robot that needs retry.</p> <p>According to ABU FAQ3, Q2.5-3) Rule 2.5d) <i>"During retry, the team members can adjust and change the position of the Arrows carried on the robot."</i></p> <ol style="list-style-type: none"> <li>1. When preparing for a retry, are team members allowed to remove and keep the Arrows that TR or DR picked up from game field?</li> <li>2. If team members can keep Arrows, team members are allowed to do following actions? <ol style="list-style-type: none"> <li>a. load the Arrows in TR or DR in next retry</li> <li>b. load the Arrows to the Rack</li> </ol> </li> </ol> <p>A:</p> <ol style="list-style-type: none"> <li>1. When preparing retry, for example moving the robot to its retry area, the team member can remove the arrows from the robot and hold them in his hand, whether or not these arrows are picked up by the robot from the ground. <b>If the team member throws or puts these arrows on the ground, they can't be picked up artificially.</b></li> <li>2a. Allowed before the robot restarts</li> <li>2b. Not allowed.</li> </ol>
31	After taking up 5 arrows from the arrow rack, can we call retry and relocate the arrow at any position on the robot in the start zone?	<p>Yes, members can relocate the arrow to any position on the robot.</p> <p>According to ABU Rulebook 2.5 d), <i>during retry, the team members can only adjust and change the position of the Arrows carried on the robot.</i></p>
32	If an arrow passes from the same team robot, or shot from the opponent robot, or jammed in our robot without touching the ground, or any arrow within our robot, can we called “retry” to place the arrow at any position in the “start zone”?	<p>Yes, members can relocate the arrow to any position on the robot as long as the arrow does not touch the ground.</p> <p>According to ABU Rulebook 2.5 d), <i>during retry, the team members can only adjust and change the position of the Arrows carried on the robot.</i></p> <p>According to ABU FAQ3, Q2.5-3) Rule 2.5d) <i>"During retry, the team members can adjust and change the position of the Arrows carried on the robot."</i></p> <ol style="list-style-type: none"> <li>1. When preparing for a retry, are team members allowed to remove and keep the Arrows that TR or DR picked up from game field?</li> <li>2. If team members can keep Arrows, team members are allowed to do following actions?</li> </ol>





		<p>a. load the Arrows in TR or DR in next retry b. load the Arrows to the Rack</p> <p>A: 1. When preparing retry, for example moving the robot to its retry area, the team member can remove the arrows from the robot and hold them in his hand, whether or not these arrows are picked up by the robot from the ground. If the team member throws or puts these arrows on the ground, they can't be picked up artificially. 2a. Allowed before the robot restarts 2b. Not allowed.</p>
33	Can the team check the arrows, enter the game field, and move any game object or materials during the 1 minute setting time?	Teams are not allowed to enter or check the game field during the 1 minute setting time. The Organiser will check all the game materials before each round and game, ensure they comply with the game rules.
34	<p>Game rules 2.4.2 mentioned c) During DR turns the II-type or III-type Pot Table, only the handle on the Table can be utilized, and no contact with any part of the Table or Pot shall be allowed, except accidental contact.</p> <p>How do you define accidental or intentional?</p>	<p>It is about the intention of the movement.</p> <p>Example 1: If Team A turns the pot table and the pot table has touches Team B' robot &gt; Team B's will be seen as unintentional, no penalty will be given</p> <p>Example 2: If Team A heads straight to the Pot table and touches the pot table or pot &gt; Team A will be seen as intentional, compulsory retry will be enforced</p> <p>Example 3: If Team A intentionally stop the spinning pot table and touches the pot or pot table &gt; Team A will be seen as intentional, compulsory retry will be enforced</p> <p>The final judgement will be made by Referee.</p>



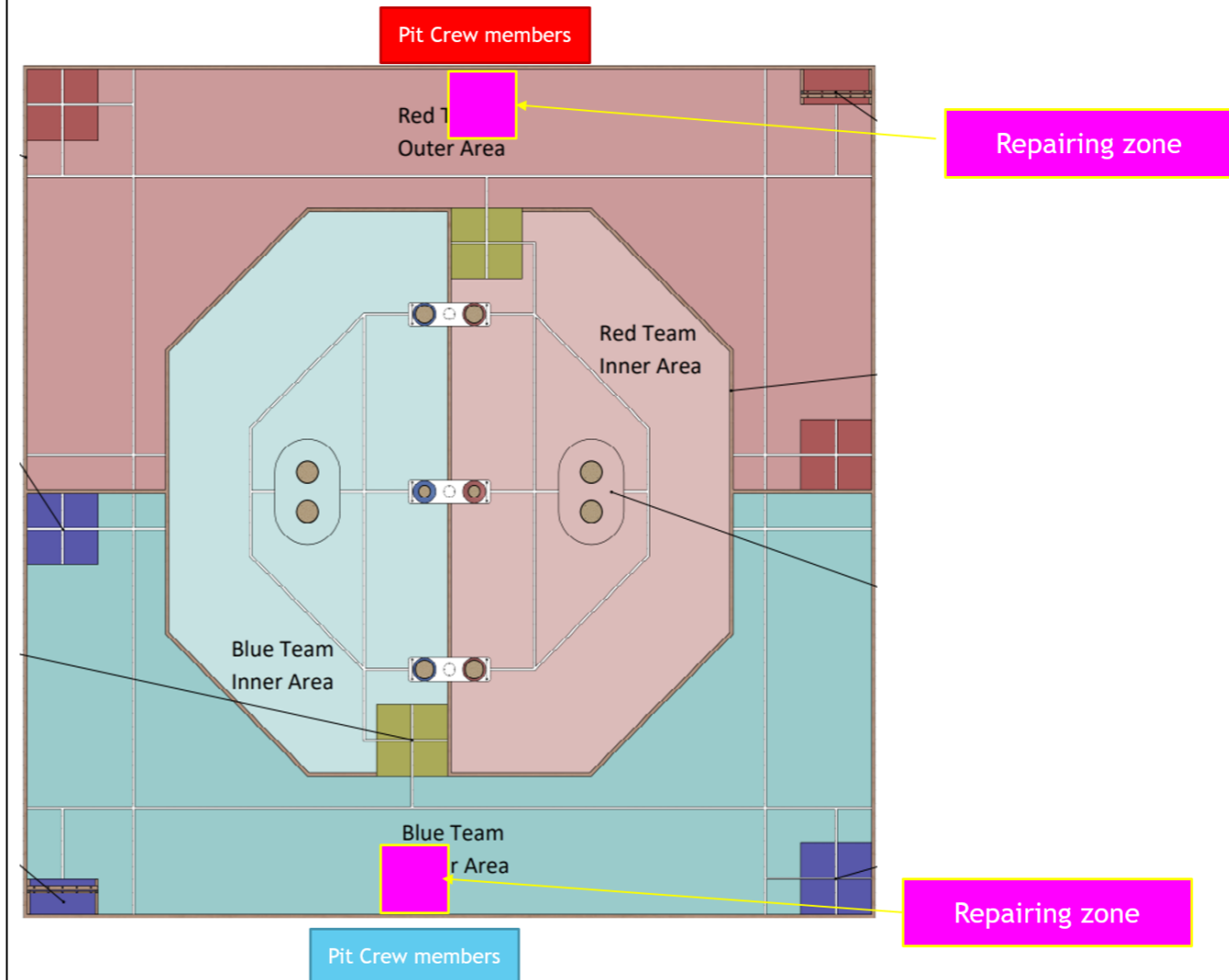


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35	<p>Referring to 2.4.1b) ii, <i>if an arrow is thrown into a certain pot, TR must immediately turn to another Pot and throw at least one (1) Arrow.</i></p> <p>How to define throw? When can I launch another arrow? Does waving the arrows count?</p>	<p>The arrows must be landed either inside the pot or on the ground. The fence will also be counted as part of the ground.</p> <p>According to 2.4.1b) i, <i>DR can only throw one (1) Arrow each time. Before the Arrow enters into a Pot or lands somewhere, it can't throw out the next Arrow.</i></p>
36	<p>Can we move the robot to touch or in contact with the arrows on the arrow rack and call out retry?</p>	<p>According to ABU FAQ3, Q2.5-3) Rule 2.5d) <i>"During retry, the team members can adjust and change the position of the Arrows carried on the robot."</i></p> <p>If the teams wish to do so, the arrows must be completely hold up by the robot.</p>
37	<p>If Team A's robot is stopping in between the two pot table and Team B turns the pot table. The pot table touches Team A's robot, is Team A intentionally touches the pot?</p> <p>Referring to Game rules 2.4.2 mentioned <i>c) During DR turns the II-type or III-type Pot Table, only the handle on the Table can be utilized, and no contact with any part of the Table or Pot shall be allowed, except accidental contact.</i></p>	<p>It is about the intention of the movement.</p> <p>If you intentionally choose to stay in between the pot tables. Then the action is seen as intentional.</p>
38	<p>The DR retry zone is close to the II-type Pot Table, if Team A is retrying and Team B spins the table or shoot an arrow, it is dangerous for the students and robots to be in the retry zone.</p>	<p>Due to safety concern, the Hong Kong Organiser and contestants have agreed to set up a "Repairing Zone" at the team's outer area. There will be no marking of the "Repairing Zone", one side of the robot must be in contact of the fence.</p> <ol style="list-style-type: none"> <li>1. If Team A is calling for retry and pit crew members have entered the game field, Team B can continue to shoot and spin all table.</li> <li>2. Team A will then need to bring the robot to the "Repairing Zone", pit crew members have to move out of the game field immediately</li> <li>3. After repairing the robot, the robot should move back into the inner area DR Retry Zone for retry</li> </ol>

4. According to ABU Q&A4, Q2.5-4)3., if the II Type Pot Table is overlapping your retry zone, the referee will allow part of your DR to stay outside of the Retry Zone  
*if the II-type pot table overlaps partially with the DR retry zone in your DR's retry, the referee will allow your team member and DR to be not fully fit into the DR retry zone;*





39	<p>It is mentioned that if the 2nd arrow shot into the same pot consecutively, it will not be scored. What about the 3rd arrow shot into the same pot consecutively? Since an arrow is already thrown in between, this 3rd arrow is valid for scoring right?</p>	<p>According to ABU Rulebook 2.4.1 b <i>TR can throw or launch Arrows to any Pot setting on any Pot Table from any location in its team's Outer Area. But,</i></p> <ul style="list-style-type: none"><li><i>I. It can only throw one (1) Arrow each time. Before the Arrow enters into a Pot or lands somewhere, it can't throw out next Arrow. And</i></li><li><i>II. If an arrow is thrown into a certain pot, TR must immediately turn to another Pot and throw at least one (1) Arrow.</i></li><li><i>III. The Arrow entered into the opponent Pot gains points for the opponent team.</i></li></ul> <p>The situation you proposed does not fulfill Rule 2.4.1b) ii. If the 1<sup>st</sup> arrow is aiming for Pot A, the 2<sup>nd</sup> arrow should turn to pot B, so as the 3<sup>rd</sup> arrow. If the 3rd arrow is aiming Pot B again, it will not be scored. But if the 3rd arrow aims back to Pot A, it will be scored.</p>
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