

Robocon Malaysia 2022

FAQ

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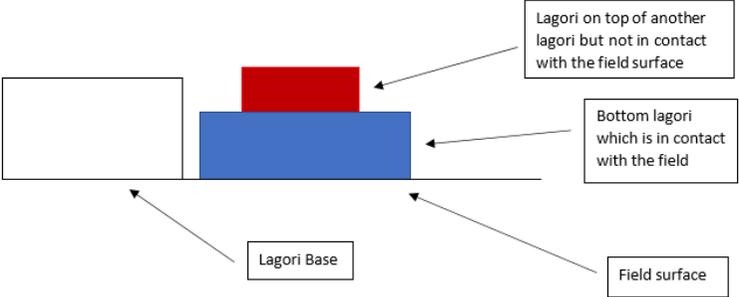
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1. Terms and Definitions

FAQ #	Question	Answer
1.2-1	Robots must be autonomous or manual?	As stated in Section 1.2 of the rule book, the robots can be either manual or automatic.
1.2-2	Is it allowed for R1 to be a static robot? Meaning, no wheels attached to it.	Yes, it is allowed.
1.5-1	Can the BOH move when the Seeker R2 is piling up the lagori discs? For example, spinning around while maintaining its position on top of the pipe and plate?	Yes, as long as the conditions of BOH in Section 1.5 are met. In addition, the plate should be fixed with the robot i.e. no relative motion between the robot and the plate is permissible.
1.5-2	BOH must be placed at the top of the robot's head, can we use any mechanism (suction or a vacuum) under the BOH?	No, it is not allowed.
1.5-3	Since the ABU Robocon will provide pipe and plate for Ball on Head (BH) for uniformity, does Robocon Malaysia 2022 provide the pipe and plate for the BH as well?	No, it is as stated in Section 1.5. The team must prepare the pipe and plate according to the specifications given in the rule book. The colour is blue, as shown in the following figure.

		
1.5-4	<p>If pipe and plate are not provided, what materials are allowed to be used for the pipe and plate? Can PVC or MS be used? Can whole BOH be made just from MS or PVC? Or is it an MS plate and a PVC pipe?</p>	<p>The allowed materials are MS or PVC. The whole plate and pipe to support BOH can be made in combination of the allowed materials.</p>
1.5-5	<p>How much percentage error is acceptable for the thickness and diameter of the materials used for BOH?</p>	<p>±5%, as stated in Section 8.2 of the rule book.</p>
1.5-6	<p>Can the head plate be attached to a moveable platform? It will be at the top of the robot and comply with other rules.</p>	<p>Yes, it is allowed. Refer FAQ1 1.5-1 (ABU ROBOCON)</p>
1.5-7	<p>Can we have any defence system for BOH?</p>	<p>Yes, as long as it complies with all the rules.</p>
1.5-8	<p>It is stated that the allowed materials are PVC pipe and metal steel plate. However, we could not find the exact dimension of the materials, mainly the</p>	<p>No, it is not allowed. You must use PVC or MS.</p>

	thickness of PVC pipe could not meet the requirement. What if we used 3D printing with Polylactic Acid (PLA) plastic for both pipe and plate, is it acceptable?	
1.7	From rule 1.7, Only Seeker 2 can enter Lagori Area. Can my Hitter 2 move through the Lagori Area?	No, it is not allowed.
1.12	Can the whole of R1 enter the penalty zone to throw at the lagori discs at the lagori base (lagori break) as long as it does not exceed 10 seconds?	No, it is not allowed. The ground plane of the robot must stay in R1SZ when it is throwing the Seeker balls, however it can extend outside in the space above. Please refer to Section 2.1.10 and Section 2.2.3.
1.17	Since the lagori is made of polyurethane foam which is soft, are we allowed to compress the lagori using R2 as long as it does not permanently deform its shape?	Yes, it is allowed.
1.18-1	What if some of the discs are stacked together whilst broken from the pile and may not come into contact with the surface? Will points still be given?	Only lagori that touches or is in contact with field surface is considered broken and will get points.
1.18-2	Here it says that the lagori is considered broken if a part of Lagori disc(s) come in contact with the field surface. If so, what about cases such as when a	See answer 1.18-1. With reference to the figure, points are given only for the blue lagori.

	<p>certain lagori is on top of another lagori, hence being not in contact with the field surface but the lagori beneath it is in contact with the field surface? Does that count as Lagori Break as well?</p> 	
1.20-1	<p>During “Lagori Pile”, can the lagori discs be piled up next to the Seeker R2 (or projected into seeker R2 body) before putting the completed pile on the lagori base?</p>	<p>Yes, however, the “Lagori Pile” points will only be awarded when any (if not, all) lagori disc is piled by the seeker R2 on the lagori base according to the pile arrangement depicted in Fig 4 in the rule book.</p>
1.20-2	<p>From rule 1.20 can we pile lagori with fewer disk in decreasing order? As if we can pile lagori discs in the following order as 4-3-2-1 or 3-2-1 or 5-4-3, with 10 points of each lagori piled.</p>	<p>You have to pile the lagori in the original order on top the lagori base (see Figure 4 in game rules book). You get points based of the number of lagori that you pile on the lagori base. Fewer disks still get points if the arrangement is in the correct order.</p>
1.20-3	<p>It is stated that a Lagori disc which has gone out of the Lagori Area cannot be used. For instance, the 3rd Lagori (350mm) has gone out of the Lagori Area and</p>	<p>For this situation, the team will get points for the 3rd lagori during lagori break. However, for the case of lagori pile, no points will be given for the lagori that has gone out of the lagori area.</p>

	thus a Perfect Lagori cannot be obtain since the piling is impossible to be achieved as Fig.4, how then would the points be calculated?	
1.20-4	Also, in cases whereby if the opponent's R1 Hitter intentionally/unintentionally hit one of the lagori that is still on the field surface and not on the lagori base yet and that lagori went out of the Lagori Area which causes R2 Seeker not being able to achieve a Perfect Lagori, how would the points be calculated?	The judge will put back the lagori into lagori area for Seeker R2 to continue piling up on the base. Hitter team must retry.
1.20-5	During Lagori Pile, one of the Lagori discs goes out the Lagori area and that Lagori cannot be used. Can we continue piling the remaining Lagori discs? This is because according to the updated game rule section 1.20 – “However, if there is a lagori disc which has gone out of the Lagori Area and cannot be used, you can continue piling up the Lagori except for that disc.	We use the updated version (7 Feb 2022) for section 1.20 in ABU Robocon 2022, in which, during Lagori Pile, the robot can continue piling except for that disc.

2. Game

FAQ #	Question	Answer
2.1-1	During the 1-minute exchange (Setting time) between seeker role and hitter role, are we allowed to change the robots' batteries and repump gas into the robots?	It is allowed to change the batteries of the robot during the Setting time for Round 2. However, re-pumping the gas using a compressor is not allowed during the time. Instead, the team can change containers filled with compressed air, following the guidelines mentioned in Section 3.6.5. The used of spared batteries and compressed air are subjected to terms and conditions stated in the rule book, and they should be checked and approved prior to the start of the game.
2.1-2	Can the Seeker balls for R1 be preloaded before the start of the match?	The balls can be preloaded into R1 during the 1-min setting time.
2.1-3	Can we change the robot's mechanism during the change of role e.g. from being a Seeker to a Hitter?	No, it is not allowed.
2.1-4	According to Section 3.4.4., "the team members are not allowed to enter the 'Lagori Area' and the 'Ball Areas'." Does that mean that the team members are allowed to enter their respective Red and Blue areas?	No, it is not allowed. Kindly refer to Section 2.1.7 in the rule book.
2.1-5	Is there any limit for the speed of the ball thrown by robot R1?	The speed of the ball must be less than 30km/h. * Measured 4m away from the front with a speed gun.

2.1-6	Are we allowed to pump gas into the bottles/containers on our robots and connect batteries to our robots before the setting time? Also, are we allowed to setup up our computer as well before the setting time?	Assuming that the question is referring to the setting time prior to the start of the game, yes, it is allowed.
2.1-7	Since each round is 90 seconds, shooting down the Lagori is 30 seconds and piling up the Lagori is 60 seconds. If seeker R1 finishes the task earlier, can the extra time be added to the second section?	Yes, it is allowed. For example, if the Seeker R1 finishes the task in 10 seconds, the remaining time for Lagori pile is 80 seconds (90 seconds – 10 seconds) because the time duration for each round is 90 seconds. Please refer to Section 2.1.11 in the rule book.
2.2-1	If the hitter R1 shoots the hitter ball and hits other non-permissible parts of seeker R2 such as the wheels or etc. and the BOH falls down, does the seeker R2 has to return to its SZ to reset the BOH or can it reset from its place where the BOH is mistakenly shot down?	Seeker R2 can be reset at its places where the BOH is mistakenly shot down. Please refer Section 2.2.18.
2.2-2	What does the FAQ 2.2-10 in the ABU Robocon India 2022 exactly mean? What does the term “in orbit” means?	If the Hitter ball thrown by hitter R2 is projecting towards the BOH, pipe and plate, and resulting in the removal of BOH, then the removal of BOH is considered valid under all circumstances. “in orbit” can also mean “in a curved path” or “in a trajectory”.

2.2-3	Can hitter R2 throw the ball in the Ball area to hitter R1?	Yes, provided that it complies with all the rules such that the ball cannot touch the field surface.
2.2-4	After we throw the ball, can we pick the balls in the Ball area simultaneously?	Assuming that “we” is referring to the Hitter team, yes, it is allowed as long as the robot complies with the rules.
2.2-5	Can we still use the ball if the ball happens to be passed out of the game field?	No, it is not allowed.
2.2-6	Can we use any mechanism on the robots including suction for the purpose of throwing/picking up the balls?	Yes, it is allowed.
2.2-7	Is there any specific conditions for the throwing mechanism?	No specific conditions apart from the ones mentioned in the rule book for Seeker and Hitter.
2.2-8	Can we change the role of the robot during the match?	No, it is not allowed. Please refer 2.1-3.
2.2-9	Based on Section 2.2.17, what if the Hitter hits the robot when the robot (Seeker R2) is carrying the lagori discs in a pile and the pile is not yet placed on the base?	When it is judged that the Hitter R1 is aiming at a part of the opponent’s robot instead of the BOH, the team will be disqualified (Refer Section 5.2 in the rule book). Otherwise, the team must retry.
2.2-10	If the Seeker R2 has the lagori discs piled up in its body, is it permissible for the Hitter R1 to aim for the lagori pile? What if the Hitter R1 is targeting the BOH	No, it is not allowed (Please refer 2.2-9). If it is deemed accidental, the Hitter team must retry.

	but instead, the ball hits the lagori pile inside Seeker R2?	
2.2-11	Can seeker R2 use pressurized air to deflect the path of the ball thrown by hitter R1 to defend ball on head seeker R2?	No, it is not allowed. Refer FAQ1 2.2-5 (ABU ROBOCON)
2.2-12	If R2 Seeker and NOT the Lagori protrudes outside of the Lagori Area during this session such as into the Ball Area and Opponent's Area, will it be considered a violation?	Yes, it is a violation. The team must retry.
2.2-13	If the Seeker R2 is able to pile back a few fallen lagori [NOT all] back onto the lagori base and its BOH is suddenly displaced by Hitter R1, how will the points be counted?	The points will be counted based on the number of lagori that have been successfully piled on the lagori base before the BOH is displaced by Hitter R1.
2.2-14	Related to Rulebook 2.2.17, Hitter R1 accidentally shoots down the Lagori that is held by Seeker R2. Have the Seeker achieved the task?	No. The seeker team member can stop the robot, enter the game field with judge's permission and put the Lagori back to Seeker R2. The Hitter team must retry.
2.2-15	Can Hitter R1 shoot Lagori on the ground?	No, it is not allowed. It is considered a violation by the hitter team and the team must retry.

2.2-16	Hitter R2 hits my Lagori on my robot and the Lagori falls down. Can the team member pile up the Lagori on the robot at the same spot?	Yes, the team member can immediately stop the robot, enter the gamefield and piles up the Lagori at the same spot under judge's permission. Hitter team must retry.
2.5-1	If one of the robots, R1 or R2 causes a violation, and a retry is needed, is the compulsory retry applicable to both robots or only to the robot causing it?	Both robots in the team, as stated in Sections 2.5.3
2.5-2	According to Section 2.5.8, "the Lagori will be returned to the Lagori area." What does it mean by that? Specifically, where will it be returned to?	Section 2.5.8 is referring to Section 2.5.7 where the team members can touch the Lagori during a retry if, and only if, the robot cannot restart without touching the Lagori. Once the team member(s) touches the Lagori, the Lagori should be returned to the location on the ground where it is taken from in the Lagori area.
2.5-3	If one of the robots, R1 or R2 ask for a self-retry which is NOT due to violation, do both robots, R1 and R2 also need to return to their SZ or just the specific robot?	Both robots.

3. Robots

FAQ #	Question	Answer
3-1	Is there a limit for the number of robot controllers?	No, as long as it complies with all the rules.
3-2	Can we use vacuum technology for this year Robocon?	Yes, it is allowed but the robots are not allowed to stick on the game field. (With reference to faq2_30jan2022, FAQ 1-5 in ABU Robocon 2022)
3.4	Are there any rules regarding the dimension of the robots?	Please refer to Section 3.4 in the rule book.
3.7	Can we use RC?	No, it is not allowed. Please refer to Section 3.7.2

6. Safety

FAQ #	Question	Answer
6.1	What if the robot unintentionally collides with another robot and causes damage (or worse, broken)?	The team will be disqualified as the robot does not follow the safety instructions and warnings issued by the organization.

7. Teams

FAQ #	Question	Answer
7	We have 6 team members, 1 team leader dan 1 manager. Can the team leader be in the field during competition?	Only 3 team members can be in the game field during the competition. Pit crews can only participate in setting of the robots (refer to rule 7.2). For Robocon Malaysia, 7 persons are allowed

to participate in the Robot Test and the Competition. They are team manager OR Team Leader, 3 team members and 3 pit crews.

Positions of pit crews and team leader/manager during the game

