

Robocon Malaysia 2023 FAQ

Revised on (2023.06.05)

Questions that have been added after the publication of the Game Rule FAQ on 2023.05.31 are denoted with an asterisk (*)

Please read the rule book carefully before sending any questions. Please cooperate with us for smooth operation in a limited time.

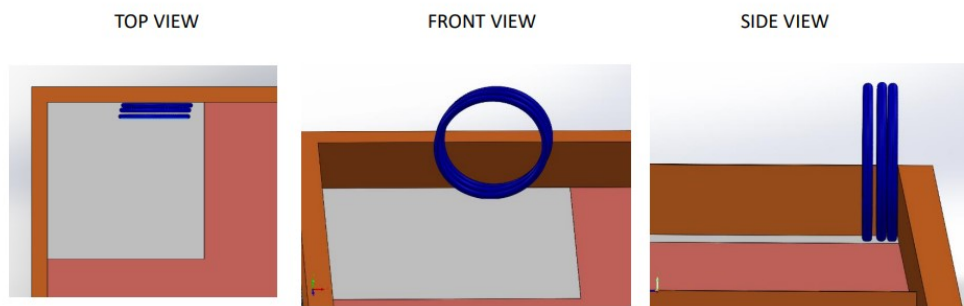
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1. Terms and Conditions

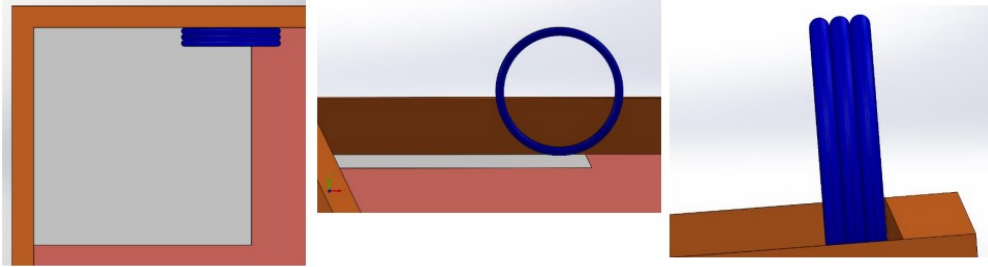
FAQ #	Question	Answer
1-1	How are the 40 rings distributed amongst the 3 ring zones?	10 rings must be arranged inside each ring zone of the team's red/blue area. Another 20 rings must be arranged inside the ring zone of the team's Angkor red/blue area. Please refer to Terms and Definitions number 17 in the rule book.
1-2	May I ask about we can arrange rings touch the fence	Rings must be placed in the ring zone and can lean on the fence.
1-3	I want to ask about ring arrangement. There are 4 types of ring arrangements in the document sent. May I ask which of those ring arrangements are violation or not violation (without considering the number of rings in the document, just consider only the arrangement)? (REMARK 1: Regarding ring arrangement 2 and 4, since in the whole game rules only state that "before game starts, ring should be arrange in ring zone", but it does not mention	Figure (1) : Allowed Figure (2) : Not allowed Figure (3) : Allowed Figure (4) : Not allowed

something like "should be arrange in ring zone, including its space above". The parts of rings in arrangement 2, which in contact with the ground, is completely in ring zone, but some parts of rings in space, is not in the "space above" the ring zone)

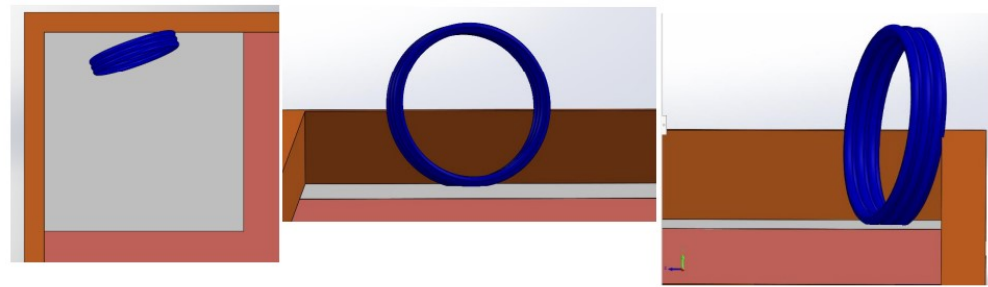
(REMARK 2: Regarding ring arrangement 3, the rings are lying against the fence, little part of the rings are on the "space above" the fence, but not exceed the game field. Since the game rule allows us to arrange those rings against the fences, but sometimes the stacks of those rings will had little slanted towards the fence more, after arranging upright to the ring zone)



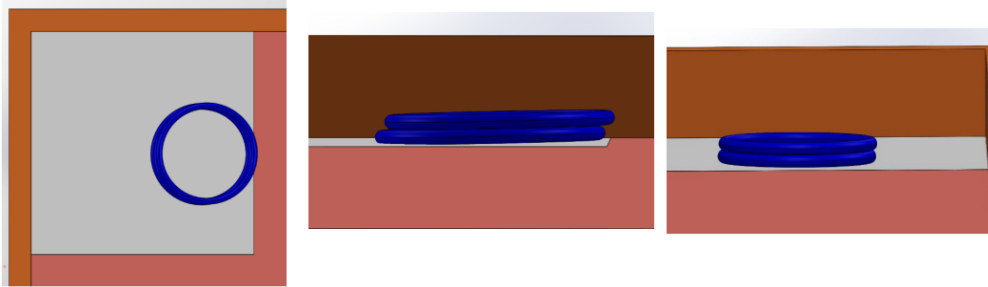
(1)



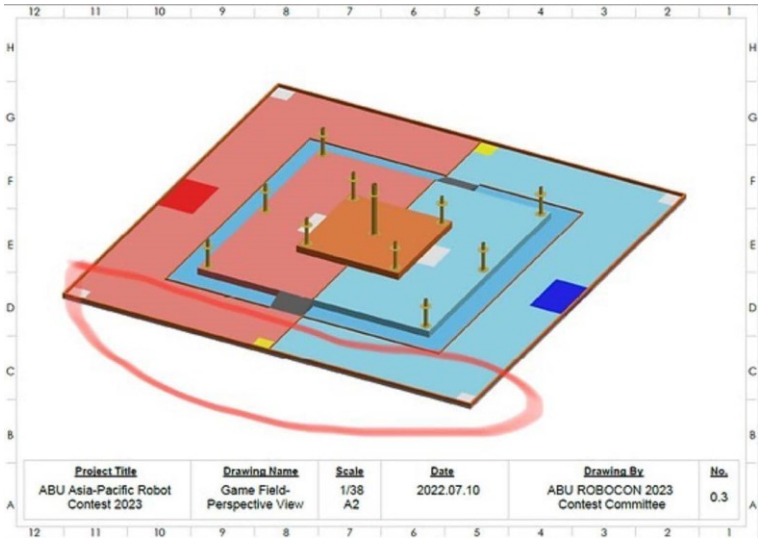
(2)



(3)



(4)

<p>1-4</p>	<p>What is the exact outer diameter for the ring in the competition? Because in the sheet 'steps to construct the ring' is 13 mm while we bought pipe from the link given is 12mm. So, which 1 is correct?</p>	<p>Depending on the stocks provided by the supplier, the diameter can range between 12-13mm hence it is acceptable, as long as it is being purchased from the supplier information that we have provided.</p>												
<p>1-5</p>	<p>Does the field at USM have frame for the border?</p>  <table border="1" data-bbox="376 1066 1086 1129"> <thead> <tr> <th>Project Title</th> <th>Drawing Name</th> <th>Scale</th> <th>Date</th> <th>Drawn By</th> <th>No.</th> </tr> </thead> <tbody> <tr> <td>ABU Asia-Pacific Robot Contest 2023</td> <td>Game Field- Perspective View</td> <td>1/38 A2</td> <td>2022.07.10</td> <td>ABU ROBOCON 2023 Contest Committee</td> <td>0.3</td> </tr> </tbody> </table>	Project Title	Drawing Name	Scale	Date	Drawn By	No.	ABU Asia-Pacific Robot Contest 2023	Game Field- Perspective View	1/38 A2	2022.07.10	ABU ROBOCON 2023 Contest Committee	0.3	<p>Yes. We are following the same game field specification as ABU ROBOCON 2023.</p>
Project Title	Drawing Name	Scale	Date	Drawn By	No.									
ABU Asia-Pacific Robot Contest 2023	Game Field- Perspective View	1/38 A2	2022.07.10	ABU ROBOCON 2023 Contest Committee	0.3									

2. Game

2.1 Game Procedure

FAQ #	Question	Answer
2.1-1	Is it allowed the operators to stand in red or blue area?	No. The operators need to be outside of game field once the game started.
2.1-2	Will the operators be restricted to stay within a certain zone while controlling the robot?	Operators must be outside the game field during the game.
2.1-3	Can we reuse the ring that miss target	Yes.
2.1-4	Can RR be inside ER initially?	Yes.
2.1-5	Can rings toss to opponent retry zone?	Yes. The rings cannot be used anymore.
2.1-6	Can the robot operators stand at the side of the game field?	Yes
2.1-7	<p>Since it is not a violation to shoot a rings to retry zone and the ring cannot be removed, but if RR have to retry at retry zone, the ring might block the navigation of RR or the ring shape deformed as RR might "stand" on the ring, can we</p> <p>i) remove the ring outside of the game field?</p> <p>ii) remove the ring and let RR go first, then put back the ring to the original place?</p>	In both cases (i) and (ii), the team members cannot remove the rings on the field. The jury will remove the ring if it is deemed necessary.

2.1-8	Can operator go to the outer side of opponent area (not in game field) during the game?	No, operators can only be outside their own game field area.
2.1-9*	Where will the pit crew stay during the game?	Pit crew members will stay outside (but near to) the game field during the game.
2.1-10*	Can operators not wear sock during the match?	No, it is not allowed. All operators must wear socks during the match. Attire guidelines have been uploaded on the website.
2.1-11*	During the game, for the 3 members at the gamefield, can they switch among them to control the robots?	Yes, it is allowed.
2.1-12*	Can the circuit be powered on before entering the field? If not, can MCUs be powered first?	For both cases, no it is not allowed.
2.1-13*	Can we bring laptop to the field?	Yes, it is allowed.
2.1-14*	Can we use tape to kind of like mark the floor on where we want our robots to be at?	No, it is not allowed.
2.1-15*	How long is the robot test period for each team?	Approximately 10 minutes.

2.2 Points

FAQ #	Question	Answer
2.2-1	Let say any robot (RR or ER) toss the ring to the pole, and the ring not fully enter the pole, yet it stuck and obstruct/prevent others ring to get into the pole, Does referee/judge will remove the rings from pole?	No, the rings will not be removed.
2.2-2	Referring to previous question about ring stuck on the pole. Since the judge/referee will not remove the ring from pole, does it mean that particular pole cant be conquer/score by either team for the whole match. Because there is ring stuck on the pole(the ring not fully enter the pole & not counted as score)	Not necessarily. If other rings shoot down the stuck ring, then the pole can be used again.
2.2-3	Is the ring points counted when the ring enters the pole or the ring lands in the pole?	The ring lands in the pole.
2.2-4	The game will be going on fast, how does the jury notice the rings put on the pole?	A number of juries will be assigned for each game, sufficient enough to monitor the ring movements for each pole.

2.4 Retry

FAQ #	Question	Answer
2.4-1	RR already enter Angkor wat area to take ring but then RR go down the bridge and shoot the ring from the blue area not Angkor wat area. So where RR should go if retry? Start zone or retry zone?	RR can shoot the ring in both areas as per stated in rule book Section 2.1.10. No need to retry. If RR needs to retry for any reason, forced or voluntarily, RR should retry from the Start Zone.
2.4-2	When retry, are we allow to arrange rings in ring zone?	The rings that are currently being held by the robots must be returned to any ring zone. Rings that are not held by the robots should be untouched.
2.4-3	If both robot retry, do ER need to wait RR to go at retry zone first or can straight away start after ER arrived start zone	ER can straight away start as soon as it arrives at the start zone. There's no need to wait.
2.4-4	If the ring stack got deformed by enemy, does our team need to retry too to arrange our ring again?	No, only the opponent will be forced to retry. Your team can rearrange the deformed rings without retrying.
2.4-5	when retrying, can we rearrange the rings that is on the retry robot?	No. The rings that are currently being held by the robots must be returned to any ring zone.

2.4-6	when retrying, can we clear any unused rings on the game field?	No, they should not be removed from the field.
2.4-7	can we reposition the rings that is already picked up on the robot when retrying?	No. The rings that are currently being held by the robots must be returned to any ring zone when retrying.
2.4-8	If the opponent disrupts our ring formation in the ring zone, can we rearrange the rings?	Yes. And the opponent must retry.
2.4-9	when RR gets violation at the retry zone due to passing the opponents space, then RR should retry again at retry zone or start zone?	RR must retry at the start zone.
2.4-10	Please clarify, after a robot has picked up the rings from the ring zone, then a retry occurs, does the rings remain on the robot or the rings goes back to the ring zone?	The rings that are currently being held by the robots must be returned to any ring zone.
2.4-11	hi, a little bit confuse ,is that we just can rearrange the ring that never shoot(never use) in the the ring zone when retry (like rearangge the stack rings that deformed during picking), but if the ring already be shooted to ring zone, or the robot push the ring to ring zones, we cannot rearrange it when retry	No. You are not allowed to rearrange the rings in the ring zone unless if the ring(s) are on your robot during retry. You are allowed to rearrange rings in your ring zone only if the opponent damage your ring arrangement.

2.4-12	If robot accidentally hit the stack of ring and the stack is deformed. Can we ask for retry and arrange the ring back?	You are allowed to rearrange rings in your ring zone only if the opponent damage your ring arrangement.
2.4-13	When retry, can we rearrange the rings in ring zone?	You are not allowed to rearrange the ring(s) in the ring zone unless if the ring(s) are on your robot during retry. You are allowed to rearrange rings in your ring zone only if the opponent damage your ring arrangement.
2.4-14	If the rings shot back to ringzone, still can pick up when retry?	No. You are not allowed to rearrange the ring(s) in the ring zone unless if the ring(s) are on your robot during retry. You are allowed to rearrange rings in your ring zone only if the opponent damage your ring arrangement.
2.4-15	The stack rings in the ring zone is deformed during picking. can we retry and arrange that rings back?	No. You are not allowed to rearrange the ring(s) in the ring zone unless if the ring(s) are on your robot during retry. You are allowed to rearrange rings in your ring zone only if the opponent

		damage your ring arrangement.
2.4-16	The stack rings in the ring zone is deformed and fail to pickup. can we retry and arrange that rings back (the rings still in ring zone)?	No. You are not allowed to rearrange the ring(s) in the ring zone unless if the ring(s) are on your robot during retry. You are allowed to rearrange rings in your ring zone only if the opponent damage your ring arrangement.
2.4-17	<p>Retry process is consider done: when both robots back to their respective retry area, or either 1 robot back to its retry area while another robot is on its way?</p> <p>Let's say Retry process is consider done when both robots back to their respected retry area. ER is in start zone but RR not in both retry zone and start zone. As FAQ 3.11 Revised on (2023.05.23) state that no retry on retry, which condition below is violation and forced to retry?</p> <p>i) ER extended outside of game field ii) RR extended outside of game field</p>	Both robots must retry upon voluntary retry or forced retry due to violations. Retry process is considered done once each robot goes back to their respective retry area. Each robot does not need to wait for the other robot to complete retry, in that sense. The robot that is still in retry will continue in retry state monitored by the referee.

2.4-18	<p>Regarding FAQ_230523, question 2.4-2, that also means that if we disrupt our own team ring arrangement by mistake, those rings also cannot be rearranged again when retry, true or false?</p> <p>if true, I want to ask, let's say if we use any way (without violation) to let those rings held by the robot, or just on the robot (eg: gather the misarrange rings in contact with robot gripper), does those ring able to be rearranged in ring zone during retry?</p>	<p>True. Only the rings on the robots (in any way possible attached to the robots either by holding or stacking) can be rearranged back in the retry zone upon retrying.</p>
2.4-19	<p>Regarding FAQ_230523, question 2.4-4, we can arrange our rings in ring zone without retry if opponent change our ring arrangement.</p> <p>I want to ask, if the opponent ring which distrust the arrangement of our rings lying against the rings we want to arrange, can we remove that opponent ring? If can, where should we put that ring?</p>	<p>The referee will make the decision and assist in the removal of the ring.</p>
2.4-20*	<p>If we ask for a retry, then third operator arrange ring that held by robot, do both robots need to wait the third operator to go out of game field first or can just start once both robots reach start/retry zone? So, ER and RR can start no need to wait each</p>	<p>Both robots need to wait for the operator to go out of the game field first.</p>

	other robot? Both robots need to wait third operator go out of game field or not?	
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3. Violations

FAQ #	Question	Answer
3-1	During the competition, is it possible to have a "pause" section when there is a fault happening? Because during last year competition, our opponent has a made a fault move but the judge didn't saw it and ask us to restart (the judge thought that my team is the one who make the false move). In the end, the judge admit its their fault but we can't do anything about it.	No. there will be no pause section included. We take note on the issue and we will ensure more appropriate measures are taken during the game this year.
3-2	Is it a violation when tossing a ring to opponent bridge (whether it is intentionally or unintentionally)	It is not a violation.
3-3	Can we shoot opponent's ring mid air?	Yes, you can.
3-4	If robot shoot the ring but unintentionally hit opponent's robot, is it considered violation?	No, it is not.
3-5	Is it a violation or disqualification when tossing a ring to enemy robot (unintentionally), but it cause that enemy robot malfunction?	It is not a violation if it is deemed as unintentional. However, the panel of juries will decide and have the final say on this.

3-6	Can we shoot opponents' ring stack?	No. It is a violation. Your team must retry.
3-7	if the robot exceed the space outside of gamefield during moving, is it considered violation?	Yes, it is a violation.
3-8	Is it a violation if the opponents keep stacking rings on the same poles?	No, it is not a violation.
3-9	can the rabbit robot run on the river (MOAT) zone	No, it is a violation.
3-10	Is it a violation when tossing rings and hit opponent operators?	No, if it is deemed unintentional.
3-11	is it a violation if the robot extended to the outside of game field during retry?	There is no violation issued during retry (i.e. no retry on retry). However, the jury will make sure that the robot will not disrupt the game during the retry.
3-12	Regarding FAQ_230523, question 3-11. When retry, if RR extended to opponent area but did not disturb the game, will we get a violation or not?	As stated in the FAQ section 3-11, there is no retry on retry. However, the referee will make sure the team on retry does not disrupt the game, which includes following all the rules and regulations as stated in the rulebook.
3-13	If our team robot causes the rings become the ring in picture below (the stain is black rubber) during the game, violation or	Not a violation.

not violation?



3-14

Is the situation (blue team) stated below violation or not violation? Also, highlight the part(s) where's violation act.

Before retry, RR at Angkor Wat blue area, ER at blue area.

After retry allowed, RR go to Retry zone, ER go to start zone, 1st 2nd 3rd operator take out the rings held by robots to any ring zone, and carry the robot to its respective place where to retry.

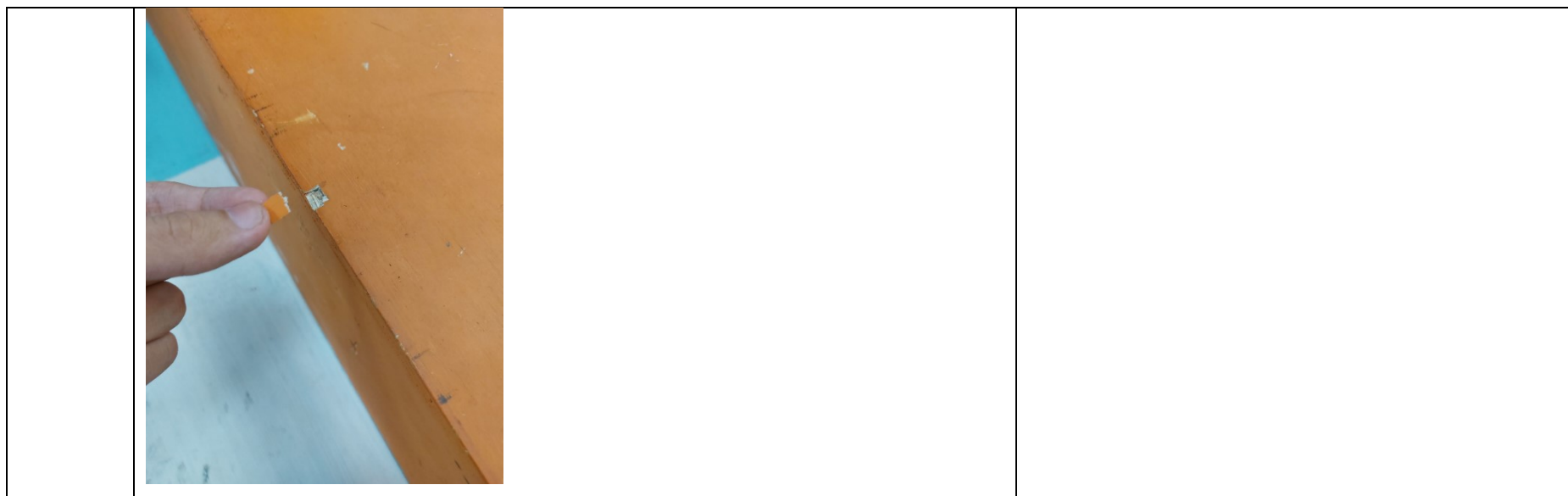
No violation.

	<p>RR malfunction, 3rd operator go to retry zone to assist RR operator to fix the problem. (3rd operator still in game field) ER had entered the start zone.</p> <p>ER starts. (RR still in retry state, where 3rd operator in game field, with RR operator fixing the RR problem)</p>	
3-15*	<p>Is it disqualification or violation in the cases below:</p> <p>1) Functional part(s) (eg: gripper, shooter, or wheels) fell off from robot during game.</p> <p>2) Large part(s) (eg: 3D printed parts, electronic circuit cover, or wheel) fell off from robot during game.</p> <p>3) Small part(s) (eg: nut, screw ,or washer) fell off from robot during game.</p>	<p>Based on Section 6 in the rule book, the design and build of robots should not pose any kind of danger to any person at the competition scene. Should the panel of juries decide cases (1) – (3) violate this rule, these cases are subjected to disqualification as per stated in Section 4.</p>

4. Disqualification

FAQ #	Question	Answer
4-1	is it disqualification if we shoot opponents' ring stack in ring zone few times ?	They are considered as violations. Your team must retry. However, if it is

		continuously damaging the rings, based on Section 4.2 of the rule book, your team will be considered for disqualification by the panel of juries.
4-2	What happens if opponent robot toss a ring and the ring fell into our robot's loading system, causing the system malfunction (like the ring stuck in shooter)?	In accordance with section 4.3 of the rule book, if the referee determines that the opposing robot's actions were carried out with malicious intent, the opposing team will be disqualified.
4-3	Picture below shows a tiny wood piece fell off from Angkor Wat Centre Area due to contact with RR functional part during ring gripping. Based on game rule 4.2, is this consider disqualification?	It is not considered a violation if the referee determines that it was unintentional.



5. Robots

FAQ #	Question	Answer
5-1	<p>Hope that the radio station/tower can be set up at some other place which is far from the game field, because during last year's competition some of the teams face connection difficulties before the competition starts (but in their own game field, they didn't face this issue before) Thank you.</p>	<p>The layout for the event has been carefully planned and endorsed to meet all event's specifications. In addition to that, we have no control over the RF communication. Please refer to Section 5.7.2 in the rule book.</p>

5-2	Just to clarify again, can we use RF ps2 controller?	Yes
5-3	During the second meeting of Robocon Malaysia 2023, it was mentioned that RF controllers can be used. Therefore, I want to ask which type of RF controller can be used?	As stated in the Rule Book section 5.7.2: "For radio frequency communication, teams can use only Wi-Fi (IEEE 802.11), Zigbee (IEEE 802.15), and Bluetooth for the communications between controller and robot and between two robots." Any controller that uses these methods of communication is allowed.
5-4	Communication between RR and ER operators is one of the keys to win the game, but since game field is very large and noisy from audiences, can operators equip wireless microphone, walkie talkie, or other wireless communication gadgets? So that RR and ER may hear the command clearly?	Not allowed.
5-5	Can one robot be controlled by 2 players?	Yes.
5-6	Does section 5.6.4 refers to the maximum total voltage used by the robot? Or does it refers to the step up voltage from	Maximum voltage in any circuit in the robot must not over than 42V. If the

	battery which should not exceed 42V?	step up voltage is used, the maximum voltage in the circuit should not exceed 42V.
5-7*	My robot uses fourteen 12V batteries . The highest measured voltage is 24V. Is it a violation?	No, it is not a violation as long as the total highest measured voltage is less than 24 V.
5-8*	How is the dimension of the robots being measured?	By using frame-based cubic box according to dimensions stated in the rules book.
5-9*	Can we use power banks to power up our Arduino?	Yes.

7. Teams

FAQ #	Question	Answer
7-1	Can we change the crew member/pit crew after we have registered their name? Due to some of the crew might not be able to attend after registered.	The team can still edit team member info on the registration system up until 5 June 2023. If the issue arises later than that, the team needs to consult with the registration unit. All changes made after the deadline is under the

		team's responsibility.
7-2	On the day of the tournament, can we change the name or crew member that will be in the game, if anything happened ?	Yes, you may consult our registration unit and inform them on the change. However, it is subjected to approval and consideration from the unit. We strongly suggest you make the final edit by 5 June 2023 online.
7-3	What is the maximum number of participants?	3 operators+3 pit crews + maximum of 30 support members.
7-4	Can the pit crew swap position with the robot pilot before the match?	Yes, it is allowed.
7-5	Can instructor (lecturer) be included in the team member/crew (not during the games)?	Lecturers or postgraduate students can only serve as a manager/instructor, not as team members/pit crews.
7-6*	If my team have 12 members where 6 are the pit crew, can we change the 6 from the 14 in between games?	There are only 3 operators and 3 pit crew members. Between games, these six members can switch among themselves. Apart from them, it is not allowed.
7-7*	Can the support members work with the pit crew or exchange	Support members can work with the

	with the pit crew in the pit area?	operators and pit crew members in the pit area. The support members cannot exchange roles with the pit crew members under any circumstances.
7-8*	How many persons can be in the game field during test period? Is it only operators and pit crew?	Yes, only operators and pit crew members can be at the game field during test run. Support members need to wait at the pit area.

8. Others

FAQ #	Question	Answer
8-1	Can we walk around and see other teams' robots for pit crew and members? When not in game, is it ok for members to see others robots?	Yes
8-2	During the match-up time, if the robot has some irregular situation such as spoiled motor, will extra time be given to repair the robot?	No extra time provided.
8-3*	Can a team bring their own air compressor? If allowed, what is the specification?	It is not allowed to bring air compressor to the pit area. However, the team can

		place it outside at the team's own risk. The specification is 600 kPa.
8-4*	What is the material of the game field floor?	Plywood
8-5*	How is the surface of the floor? Is there a chance that it could be slippery?	Plywood typically has a rough texture, which provides some traction and reduces the chances of slipping.
8-6*	What is the material of pole? Is it metal or PVC?	Steel tube