



## **Introduction**

The game is now on the theme WIRC 2023 where participants run a sumo robot to battle over the sumo robot arena. Winners will be determined by the highest quotation marks. Winners will be determined by the highest score in each group.

## **Conditions of competition: -**

### **1. Participant**

1.1. The competition is open to participants from Indonesia and the Indonesian Foreign participants through the following categories :

1.1.1. **Junior Open Category (1/2 KG)** [age > 12 years old]

This category is open to all types of robot products.

1.1.2. **Senior Open Category (1KG)** [age 12 - 19]

This category is open to all types of robot products.

1.2. Each team consists of a maximum of three (5) participants including:

1.2.1. Competitors must have at least one (1) participant and a maximum of three (5) participants.

1.2.2. Each participant (except assistant teacher/team manager) is only allowed to register/ join a team only.

1.3. Team registration must be done online at the website.

1.4. Eating & drinking are not provided.

1.5. The Robot Kit is not provided by the committee.

1.6. The committee reserves the right to cancel one or more teams that do not meet the target of at least 32 teams (or multiples of 8).

### **2. Spesification Robot**

2.1. The overall size of the robot shall not exceed the following:

2.1.1. Junior Open Category [1/2 KG]

Length 150 mm ; Width 150 mm ; Height 350mm

2.1.2. Open Senior Category [1 KG]

Length 200 mm ; Width 200 mm and Height 300 mm

2.2. The weight of the robot should not exceed the following

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- 2.2.1. Junior Open Category [1/2 KG]
- 2.2.2. Open Senior Category [1 KG]
- 2.3. The use of the "Voltage" battery should not exceed the following:
  - 2.3.1. Junior Open Category [12 VDC]
  - 2.3.2. Open Senior Category [12 VDC]
- 2.4. Each robot must be controlled by using the "Remote Control" (RC). The committee is not responsible for the occurrence of "frequencies interferences" between the teams competing.
- 2.5. Converting / replacing robots that have been damaged / destroyed with new / other robots are not allowed.
- 2.6. The names of each team should be listed on each top / edge of the robot for the purpose of revising the secretariat / referee of the match.
- 2.7. Here is a BACKGROUND over robots design / function:
  1. Using the "jamming device" equipment
  2. Build dangerous parts that can damage the surface of the arena ring.
  3. Create specially designed parts to damage the opponent's robot.
  4. Using equipment that can produce liquid, fire, bran or gas.
  5. Attach the robot over the field to avoid the opponent rather than pushing out.
  6. Use dangerous weapons.
  7. Other matters which are interpreted by the jury as dangerous / inappropriate.

### **3. Competition Arena**

- 3.1. Field Sumo made of "acrylic".
- 3.2. Sumo field size is as follows:
  - 3.2.1. Diameter [900 mm]
  - 3.2.2. Thickness [3 mm]
  - 3.2.3. Platform Height [200 mm]
  - 3.2.4. Bridge Length [500 mm]
  - 3.2.5. Bridge width [200 mm]



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Team B									
Team C									
Team D									
Team E									
Team F									
Team G									
Team H									

### **4. Implementation of the Match**

- 4.1. A complete match will take Five (5) minutes, which covers all the following levels:
  - 4.1.1. Rank Team A, B, C, D [2 minutes]
  - 4.1.2. Team Deluxe Stage [2 minutes]
  - 4.1.3. Grand Team Stage [1 minute]
- 4.2. Before the game starts, 60 seconds will be awarded all eight POINTS teams to place their robots behind their respective black lines and put "remote control" on the floor. Robot esti is in "standby mode".
- 4.3. Only one participant is allowed to stay in the area and drive the robot. Other participants are not allowed in after 60 seconds.
- 4.4. When the referee blows the whistle, the participants can take their "remote control" and start the match.
- 4.5. Participants are not allowed to touch their robots after whistle sound is blown.
- 4.6. Each team needs to make sure the opponent is refused Team ring each.
- 4.7. If one of the sides is removed from the Team court then the winner can continue the match to the next Team ring and the score will be awarded.
- 4.8. The next round of the match will only start after the two sides are in the ring. If no successful team goes on to the next stage after Two (2) minutes, then the free win will be awarded to the opponent (if any) and the winner can continue the game to the Grand Team stage.
- 4.9. If none of the outgoing parties or both sides are out of the Team ring within Two (2) minutes at each level then they can not continue the match to the next Team ring and no scores are obtained. Free win will be awarded to the opponent (if any) at the next Team level.

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4.10. If the robot drops off the bridge while moving between the Team ring then the team is not allowed to continue the match. Free win will be awarded to the opponent (if any) at the next Team level.

### **5. Grant Score & How to Define Victory**

5.1. The scores will be awarded to the following winners (as long as the winner robot does not fall out of the 100% court):

5.1.1. The successful team pushes out the opponent's robots from the courtroom completely.

5.1.2. The opponent's robots are dropped out of the court / bridge on their own.

5.1.3. Robot of the opponent suffered damage as follows:

5.1.3.1. Not working fully.

5.1.3.2. The robotic mobility / mobility

5.1.3.2.1. Robots can not move forward / backward / twist at a radius only.

5.1.3.2.2. Robots are stuck on any part of the court.

5.1.3.2.3. The robot is inverted and can not move / move on match.

5.1.3.3. Robot lost control completely.

5.1.3.4. And other damages are interpreted by the referee as not can continue the match.

5.2. Scores will not be awarded to any team as follows:

5.2.1. One or both of the robots fall out of the 100% court.

5.2.2. Both robots are still in the ring after two (2) minutes ends at each level.

5.2.3. Both robots are in / damaged at the same time.

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### 5.3. Score Score:

<b>No.</b>	<b>Scenario</b>	<b>Win</b>	<b>Lost</b>
1.	Successfully remove the opponent's robots from the ring 100%	10	-10
2.	Win free / opponents opt / Absent	10	-10
3.	Robot of the opponent is damaged (refer 5.1.3)	5	-5
4.	Both robots are still in the ring after two (2) minutes ends at each level	0	0
5.	Kedua-dua robot berada di dalam / mengalami kerusakan pada masa yang sama.	0	0
6.	Robot yang jatuh keluar daripada gelanggang (tidak termasuk terjatuh daripada jambatan)	-10	

### 5.4. Winner of Group Level

5.4.1. The group level winner will be selected according to the number of entries:

5.4.1.1. Participation 32 teams [2 winners per 1 group]

5.4.1.2. Participation 64 teams [1 winner every 1 group]

5.4.2. Winner of group level will be determined based on the following criteria:

5.4.2.1. The team that has the highest number of victories.

5.4.2.2. Team with the highest score after criteria 5.4.2.1

5.4.2.3. The teams with the "collision terms" are lowest after criteria 5.4.2.1 and  
5.4.2.2

5.4.3. If still unable to determine the winner of the group stage, the knockout round will be  
executed among the teams who have the same win.

## **6. Contravention of the Terms**

6.1. Any team that violates the following conditions will be recorded:

6.1.1. Continue the "robot setup" after 60 seconds.

6.1.2. More than one participant is in the court area.

6.1.3. Moving the robot before the whistle is sounded by the referee.

6.1.4. Not fighting even if both robots work

6.1.5. Other matters defined by the referee as "violation".

## **7. Disqualified**

7.1. Pasukan akan hilang kelayakan untuk bertanding seperti berikut:

7.1.1. Collect two (2) times of collision terms in each match.

7.1.2. Built robot does not meet competition requirements.

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- 7.1.3. Not going to court when called for willingness.
- 7.1.4. Participants behave indecently.
- 7.1.5. Participants intentionally cause injury to other participants / referees / and people around the court.
- 7.1.6. Damage to the Dohyo court intentionally / accidentally
- 7.1.7. Other matters interpreted by the referee as disqualified for the contest.

## **8. Security**

- 8.1. All types of robots must be built with no personal injury, contest participants, referees and even public.
- 8.2. If the organizer finds robot design is not safe to match then the organizer reserves the right to cancel the entry.