



SOLO ROBOTIC GAMES

Level: SD-SMP-SMA

Webinar

Workshop

Competition

Expo

TIME FRAME SRG ROBOTIC

- Zoom Sosialisasi SRG 2022** • Sabtu, 3 Desember 2022
- Zoom Workshop 1** • **Coding Mission & Animation** Sabtu, 10 Desember 2022
- Zoom Workshop 2** • **Coding Mission & Animation** Sabtu, 17 Desember 2022 *Berbayar
- Workshop Offline 1** • Rabu, 21 Desember 2022
- Workshop Offline 2** • **Technical Meeting** Kamis, 22 Desember 2022
- Workshop Offline 3** • **Penjurian Online Animation** Jum'at, 23 Desember 2022
- Lomba Soccer & Brickspeed** • **Lomba Coding Mission** Sabtu, 24 Desember 2022



SOLO
the spirit of java

Registrasi

290k/Team

untuk 1 Lomba offline dan 1 online.
+100K untuk tambahan 1 Lomba offline.

Rekening Bank Muamalat
a.n. PT Racer Robot Indonesia
No. 328 000 92 01

GAME CATEGORY

- Coding Mission/Maze Solving
- Soccer Robot
- Brick speed
- Animation Robotic (Online)

BATAS PENDAFTARAN
20 Desember 2022



SOLO SQUARE

Jl. Slamet Riyad No.451-455, Kota Surakarta, Jawa Tengah



Bit.ly/RegistrasiSRG2022

*Bagi yang tidak memiliki robot, akan dipinjamkan Robot (Gratis)/Maze Solving.
Bagi yang belum menguasai, akan diberikan training/Workshop (Gratis).

Nara Hubung:

- 0838-9321-9801 (Ms. Syifa)
- 0895-3342-34403 (Ms. Lila)
- 0896-3923-6111 (Mrs. Agur)

Support By



Organized By



Road to



GENERAL RULES

1. the competition was held online and offline, broadcast on the Racer Robotic Official Youtube channel.
2. The copyright of the works remains the property of the participants. While the organizer has the right to duplicate, publish and distribute the selected videos.
3. If the participant is less than 10 teams then the committee has the right to change the level of the category to open level or eliminate the category unilaterally.
4. Participants who take part in SRG 2022 are deemed to have agreed to all the decisions and regulations that have been established without exception.
5. Participants are required to prepare equipment and or applications needed to support activities during the SRG 2022 activities.
6. Participants who violate the rules and commit fraud will be sanctioned or even disqualified.
7. Match results will be announced on 24 December 2022
8. The decision of the jury is final and cannot be contested

ESTIMATE RUNDOWN

Friday, December 23 2022	Activity	Information	Location
13.30 – 15.00	Scratch Animation Robotic	Interview With The Judges	Online
Saturday, December 24 2022	Activity	Information	Location
07.30 – 08.00	Opening SRG 2022	-	Offline
08.00 – 09.00	Brickspeed	Match	Offline
09.00 – 12.00	Coding Mission	Workshop & Trial	Offline
	Soccer	Match	Offline
12.00 – 13.00	Break		
13.00 – 15.00	Coding Mission	Match	Offline
15.20 – 16.00	Award Announcement	All Categories	Offline

GAME LEVELS

Levels	
Junior	SD/MI / Primary
Senior	SMP/MTs – SMA/MA/SMK / Secondary

GAME CATEGORIES

Category	Junior	Senior
Animation Scratch	✓	✓
Coding Mission	✓	✓
Soccer	✓	-
Brickspeed	✓	-

List of Awards

Award @ Games

1. **Gold Medal:** Voucher AJR/MRT Robot
2. **Silver Medal:** Voucher AJR /MRT Robot
3. **Bronze Medal :** Voucher AJR /MRT Robot
4. **Excellent Award Medal***:** Voucher AJR/MRT Robot

**exclude Humanoid, Drone Coding,Brick Speed

Term Voucher AJR: Not Accumulate,Refund money, valid until 1 Desember 2022

Robots Types

1. MRT Robot.
2. OPEN Robot.

Coding Mission

Level	- Junior - Senior
Team	Team (max 2 person)
Robot	MRT 3 Kit
Mission	Program maze solving robot that make correct decision at junctions to find shortest route and gain all the points.
Game Method	Mission completion and Time record

1.0. Objective

This game required participant to construct and program a Maze Solving Robot that will move by following the line track and make decision at each of the junctions to reach more points. The robot is considered completing the task when the robot successfully reaches the END point.

2.0. Robot Dimension and Weight

1. The size of the robot at the starting box shall not exceed **20cm (H) x 20cm (W) x 20cm (L)**.
2. Each robot must fully comply with size restriction, even after all the appendages have been fully expanded.

3.0. Restriction on Robot Design

1. Robots shall not damage any part of the field or obstacles deliberately.
2. Robots are **not allowed** to have any power supply above **9V DC** (Volt of Direct Current).
3. Robots shall not cause any danger to the arena and surroundings in anyway whatsoever.
4. Robots will need to protect their sensors if necessary from any outside interferences.

4.0. Game Rules

4.1. Length of a Match

1. Programming, trial, and match session will be given for 3 hour.
 - a. Programming: **1 hours**.
 - b. Trial and match: **2 hours**.
 - c. When match session, each team have only **5 minutes** to run their robot.
2. In the following cases, a match will end even before 5 minutes.
 - a. When the task is achieved and robot stop at the END point.
 - b. In the event of disqualification.
 - c. When the referees judge that continuation of the match is impossible.

4.2. Building of Robot

1. Prebuilt.

4.3. Starting the Robot

1. Whistle will be blown as a sign of start of the match.
2. Participant is allowed to start (SWITCH ON) the robot using single switch operation.
3. After the switch is 'ON', the robot should move autonomously and no communication allowed between the robot and team member (no assistance of remote control or similar) until it crosses the finish line.

4. If the robot run out of the track or crosses the finish line while match, then the jury will stop timing and recorded as end of match.
5. The participant who performs the starting operation shall keep distance with the game field area without touching or disturbing the game field.
6. The participant who are touching or disturbing the game field will be disqualified from the match.

4.4. Competition Tasks

1. Each team have to program their own robot when the jury showing up the game track first.
2. Time will be given 1 hour for programming.
3. When programming, each team member have to use software, robots that are not programmed through software will be **disqualified**.
4. **In Trial Session** there's **2 times attempts** and **2 times re-try** will be given to each team.
5. In match session there's **1 times attempts** and **3 times re-try** will be given to each team.
6. There will be a trial sequence, if the team who first completed in programming the robot, then that team gets first order in the trial stage.
7. Once the match has begun, each robot shall complete the tasks as below:
 - a. Following the line track.
 - b. Make decision at each junction to complete the task.
8. All robots **MUST** stop at the **END POINT** in order to get **10 points**.
9. Timing will begin when the referee whistles at the Start line.
10. Timing will stop once the robot stop at the Finish Line or the robot run out of the track and the time taken to complete the route will be recorded.
11. Robots can deploy any tactics as long as it does not constitute a foul.
12. The parts which are fallen or broken from the robots cannot be fixed back into the robots during the match.

4.5. Deciding the Winner

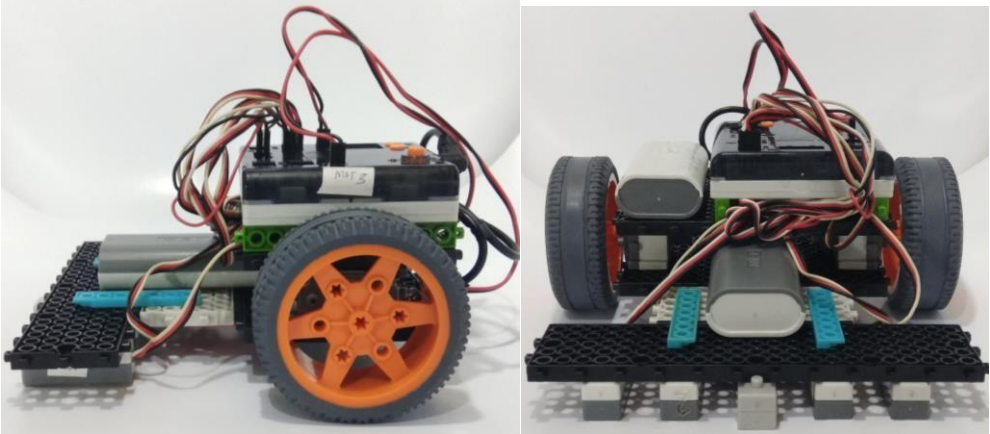
1. Each robot will be given 1 times attempts include 3 times re-try to complete the whole course and the best score will be taken as the final score. The score priority consists of:
 - a. **Points** (after the robot has following each obstacle).
 - b. **Time**.
2. In the event of a draw, or there are 2 or more participants gain the same points, the winner will be decide based on the fastest time.

4.6. Disqualification

A team shall be disqualified if it commits any of the following during the match :

- a. Team member touches the robot without referee's approval.
- b. If Robot is unable to move off 5 seconds after whistle blow.
- c. Robot does not comply with the size restrictions.
- d. A robot is stopped for more than 10 seconds.
- e. A robot is moved outside of the play field for 10 seconds.
- f. Participants are not programmed their robot through software.

5.0. Sample Robot



BRICKSPEED

Level	Junior
Team	Individual
Robot	MRT Action Figure
Mission	Construct a robot with accurate shape and fastest time
Game Method	Mission completion and Time record

1.0. Objective

Brickspeed is a game that requires participants to construct a bricks set become a robot shape that has been determined by the jury. This game test student ability to construct a robot with high stability skill as possible. The most accurate and fastest participants who have construct the brick will be the winner.

2.0 Robot Kit Used

All robots kit used, not provided by the committee.

3.0 Restriction on Robot Design

Robot shape must be built, will be announced when the competition begin, just prepare yourself.

4.0 Game Rules

4.1 Length of a Match

1. There are **3 sessions** (depend on participants who will join).
2. There are **10 participants** will compete together **per sessions**.
3. **10 minutes** persessions.

4.2 Building of Robot

1. Building of robot will be announced when the competition begin.

4.3 Competition Task

1. Build a robot (guidebook: include)
2. Raise your hands when finish. Then the jury will see what you have done.

4.4 Deciding the Winner

1. Participants who have finish with the most accurate shape and fastest time will be the winner

SOCCKER CUP

Level	Junior
Team	2 participants per team with 2 robot
Robot	MRT 3 Kit / MRT Exciting Kit
Mission	Soccer match using remote control
Game Method	Tournament

1.0. Objective

To promote team work and test student ability to construct a robot with high stability and controlling skill to play soccer game.

2.0 Robot Dimension andWeight

1. The size of the robot at the starting box shall not exceed **20cm (H) x 20cm (W) x 20cm (L)**. However, robot is not allowed to expand to any size after the game starts.
2. The maximum weight of the robot is **1000 grams** (Include batteries).

3.0 Restriction on Robot Design

1. Only MRT parts are to be used to build the robot. There is no limitation to the amount of blocks used to build the robot. You are allowed to cross use the parts from the above mentioned systems for the robots.
2. However, ONLY maximum **2 number of DC motors** and **1 mainboard** are allowed to use for for the competition.
3. Robot built is allowed to modify the mechanical parts (painting/folding) but not electronic parts. If found guilty, the player would be **IMMEDIATELY** disqualified.
4. Robots shall not damage any part of the field or obstacles deliberately.
5. Robots are not allowed to have any power supply above **6V DC** (Volt of Direct Current). VAC (Volt of Alternating Current) power supplies are strictly prohibited for safety reasons.
6. Robots shall not cause any danger to the arena and surroundings in anyway whatsoever.
7. Robots RC receivers will need to be protected from any outside interferences.
8. Robot cannot be design in a closed structure to handle the ball. The judge will check the robot structure before the competition begin.

4.0 Game Rules

4.1 Length of aMatch

1. Each game is stipulated for **3 minutes**.

4.2 Building of Robot

2. Prebuilt and programmed

4.3 Starting the Robot

1. Whistle will be blown as a sign of start of the match.
2. The participant who remote controls the robot shall keep distance with the game field area without touching or disturbing the game field.

4.4 Competition Tasks

1. All the games will be based on “knock out” system. All the teams will be distributed in opposing pairs by KRON committee randomly.
2. Each team shall consist of 2 robots and 2 participants with each participants controlling one robot.
3. During the match, the participants who control their robot please keep distance
4. with game field, and don't touch or damage the field.
5. A robot **not allowed to handle the ball** for more than **5 seconds**.
6. Upon removal of a robot from the playing field, it can only re-enter the game upon referee's approval.
7. Robots can deploy any tactics or maneuvers, as long as it does not constitute a foul.
8. The robot can only stay within the penalty area for a maximum of 5 seconds. Participant will be warned by the jury to move their robot if the robot stay within the penalty area more than 10 second.
9. Extra time of 1 minute shall be played only in the event of a draw.
10. Sudden death shall be played only in the event of draw on extra time.
11. The parts which are fallen or broken from the robots cannot be fixed back onto the robots during the match, unless permitted by jury.
12. While the match is in progress, at any time the jury whistles, the participants should stop the robot.

4.5 Deciding the Winner

1. Within 3 minutes, the team with highest goals will be the winner.
2. The 'knock-out' stage shall not consist of any points and the winner of the game shall proceed to the next round.
3. The time limit for extra time shall be 1 minute.
4. In the event of a **DRAW** by the end of extra time, 'Sudden Death' time shall decide the match in the event both teams are still tied for score. The team that missed the first ball, loses the game.

4.6 Disqualification

1. Touching the robots while the match is in progress.
2. Robot does not comply with the size restrictions.