



Kemenag Kanwil  
Jawa Barat



# JAWA BARAT MADRASAH ROBOTIC FESTIVAL

Robotic Festival Pekan Olahraga dan Seni (PORseni) PGM Indonesia Wilayah Jawa Barat

Webinar

Workshop

Competition

Expo

## TIME FRAME JMRF ROBOTIC

### WEBINAR

Strategi Pengembangan Sains & Robotic  
Madrasah Di Jawa Barat

10 Desember 2022 & 07 Januari 2023

### Workshop 1 JMRF Robotic (Zoom)

Sabtu, 07 Januari 2023

### Workshop 2 JMRF Robotic (Zoom)

Kamis, 12 Januari 2023

### Technical Meeting JMRF Robotic 2022 (Zoom)

Selasa, 17 Januari 2023

### Kompetisi Online : Animation Robotic

Rabu, 18 Januari 2023

### Workshop Offline Coding Mission & Trial Robot

Penjurian Coding Mission

Kamis, 19 Januari 2023

### Pengumuman Pemenang JMRF Robotic

Kamis, 19 Januari 2023

Pendaftaran Terakhir  
16 Desember 2022

## GAME CATEGORY

- Coding Mission
- Animation Robotic (Online)

Level : MI/Mts/MA



Bit.ly/DaftarJMRF2022

### Registrasi

290k (2 Orang) / Team  
(2 Kategori Lomba Online & Offline)  
Rekening Bank Muamalat  
a.n. PT Racer Robot Indonesia  
No. 328 000 92 01

Road to

**AJR**

AJR Malaysia 2023

26 Feb 2023



Nara Hubung:

0838-9321-9801 (Ms. Syifa)

0895-3342-34403 (Ms. Lila)

Support By



Organized By



## 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 JMRF 2023 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 JMRF 2023 activities.
6. Participants who violate the rules and commit fraud will be sanctioned or even disqualified.
7. Match results will be announced on January 19, 2023
8. The decision of the jury is final and cannot be contested

## ESTIMATE RUNDOWN

<b>Tuesday, January 19 2023</b>	<b>Activity</b>	<b>Location</b>	<b>Description</b>
07.30 – 08.00	Animation Scratch	Online	Interview With The Judges
<b>Wednesday, January 19 2023</b>	<b>Activity</b>	<b>Location</b>	
07.30 – 08.00	Opening JMRF 2023	Offline	
08.00 – 10.00	Coding Mission	Offline	Workshop & Trial
10.00 – 11.30	Coding Mission	Offline	Competition
11.30 – 12.00	Award Announcement	Offline	

## GAME LEVELS

Levels		
Junior	A	1-2 SD/MI / Primary
	B	3-6 SD/MI / Primary
Senior	SMP/MTs – SMA/SMK/MA / Secondary	

## GAME CATEGORIES

Category	Junior A	Junior B	Senior
Animation Scratch	✓	✓	✓
Coding Mission	-	✓	✓

# 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

\*\*exclude Humanoid, Drone Coding,Brick Speed

Term Voucher AJR: Not Accumulate,Not Refund money, valid until 1 February 2023

## Robots Types

1. MRT Robot.
2. OPEN Robot.

# Animation Scratch

<b>Level</b>	- Junior A - Junior B - Senior
<b>Team</b>	Individual
<b>Software</b>	MRT Scratch
<b>Mission</b>	Make animation for expressing the given theme
<b>Game Method</b>	Mission completion and Time record
<b>Competition</b>	ONLINE

## 1.0. Objective

Participants make animation works, presentations, stories, videos or music on the computer, then work to make them able to interact, act or respond to the physical world outside the computer using various sensors, so that the work becomes alive and able to interact between the computer and the physical environment.

## 2.0. Theme grid

Senior : **Animal**

## 3.0. Animation creation limitations

1. Participants can use the MRT Scratch software (download on following link : <https://s.id/MRTScratch>)
2. Participants must submit a work plan to be made and details of the story, the tools used.
3. If necessary, participants can create their own stage, with their own background.
4. THEMES are given at 08.15 WIB and must be collected at 12.00 WIB (Participants are given up to 12.10 WIB, if it exceeds at that time the participant cannot upload files to Google Classroom)
5. Design files (.sb2 format) and presentation Live (via Zoom) are saved in Full Name Format and School (example: Andriana Bayhaqi\_MIN3 Tangsel) at 13.00 WIB.
6. Participants collect the design by writing (name and school) in Private comments on Google Classroom
7. Using MRT hardware and components will be an added value.

#### 4.0. Deciding the Winner

Determination of the winner will be judged from several points which will be later accumulate to Total Points. Following are the points of assessment:

Logic to solve the problem	Relation to the theme	Content	Prototype design	Interactive	Program	Property and background	Creativity and uniqueness	Presentation skill
10	20	10	10	10	10	10	10	10

## Coding Mission

<b>Level</b>	- Junior B - Senior
<b>Team</b>	Team (max 2 person)
<b>Robot</b>	MRT 3 Kit / MRT Huna Kit / MRT X
<b>Mission</b>	Program maze solving robot that make correct decision at junctions to find shortest route and gain all the points.
<b>Game Method</b>	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 and Trial : **1 hours**.
  - b. 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

