



# **MAZE MASTER 2.0**

Robotics Competition.

## **Guideline Book – Version 1**

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Presented by: GAHDSE24.1F Batch of  
Students at NIBM Galle Campus



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## 1. Description of the Event

The NIBM Robotic Competition “#MAZEMASTER 2.0” is a robotic competition organized by the students of the HDSE24.1 batch of the National Institute of Business Management. #MAZEMASTER 2.0 is an inter-university and inter-school robot battle competition.

In this competition, university students and school students all over Sri Lanka will contest and participants will demonstrate their robotic skills in the arena prepared by the #MAZEMASTER 2.0 organizing committee. This activity is expected to become a gathering place for the creative, innovative, and productive works of the students. In addition, #MAZEMASTER 2.0 aims to improve the quality in the field of robotics towards a better Sri Lanka.

## 2. Theme

Empower the Future. Master the Maze.

## 3. Awarding Criteria

### 3.1 University Category

- 1st Place: Certificate + Rs.100,000/=
- 2<sup>nd</sup> Place: Certificate + Rs. 50,000/=

### 3.2 School Category

- 1<sup>st</sup> Place: Certificate + Rs. 60,000/=
- 2<sup>nd</sup> Place: Certificate + Rs. 30,000/=

## 4. Registration Date

Registration Period: 09/07/2024 – 07/08/2024

**Deadline for Registration: 07-08-2024**

## 5. Registration Method

Online registration can be done via links on maze master official pages.

<https://www.facebook.com/nibm.mazemaster>

## 6. Rules and Regulations

### 6.1 Participants Rules

#### 6.1.1 Open Category

1. Participants must be **more than 16 years old**.
2. Each team can have a **maximum of four students**.
3. Participants can register **only** for **one group**.
4. Team or robot may not contain insults and should be in proper name format. If any other participant teams have the same team names, the **first registered** team has the right to use that name.
5. Multiple teams could compete, representing the same institute but one team can **only submit one robot for the competition**.

#### 6.1.2 School Category

1. Participant must be **an active student** in a school in Sri Lanka. And they must present a **confirmation letter by school** confirming their identity as students representing the school.
2. Each team can have **maximum of four students**.
3. Participants can register **only** for **one group**.
4. Team or robot may not contain insults and should be in proper name format. If any other participant teams have the same team names, the **first registered** team has the right to use that name.
5. Multiple teams could compete, representing the same school but one team can **only submit one robot for the competition**.

### 6.2 General Rules

1. Participant should bring their own robots and tools.

2. Rules that have not been written will be determined by the Organizing Committee and cannot be changed thereafter.
3. The decisions of the referee and the Organizing Committee cannot be contested.
4. **Referees' decisions are the final decision in this contest.**

### 6.3 Robot Specification

1. One robot for one team for the whole match.
2. Maximum robot dimensions
  - a)  $\text{Length} \leq 30\text{cm}$ 
    - i.  $\text{Height} \leq 30\text{cm}$
    - ii.  $\text{Width} \leq 30\text{cm}$
    - iii.  $\text{Weight} \leq 10\text{kg}$
3. The robot's power supply must be internal (no external power is allowed) and maximum Voltage between any pair of points inside the robot cannot exceed 24V at any time. No internal combustion engines will be allowed. All power sources must be 100% safely contained in the robot and packaged appropriately for the expected abuse.
4. All robots with active weapons must have a Master Kill Switch that deactivates the weapon immediately or be designed to cease operation when radio signal is lost, or tether is cut. This is for the safety of the audience and the other competitors.
5. No robot may under any circumstance, present a hazard to the referees, spectators, or the opposing operator(s). No robot may in its operation cause damage to anything other than the opposing robot. Any vehicle that impairs the viewing areas will be ruled ineligible for the competition.
6. In combat situations, no liquid may be used. A robot that cannot be completely cleaned up after combat according to the judges will be disqualified.
7. All entries must confirm to the general rules of the facility and the event.

## 6.4 Battle Rules

### 6.4.1 General Rules

1. The competition is held for one day.
2. Participants who are called to check the robot must immediately go to the checkered area.

### 6.4.2 Before the Battle

1. All the participants must re-register at the site and confirm their participation before the match.
2. All the competition teams must submit the robot to the organizing committee to carry out a specification test before the competition.
3. It is not permitted to replace components after carrying out a specification test.
4. The Organizing Committee is not responsible for damage to the robot before, during or after the match.
5. Be orderly and do not disturb other participants.
6. A battery check should be done before the match.

## 6.5 Calibrations

1. One additional minute before the game period is given for the calibration of the robot.
2. Calibrations can only be done by the robot through external adjustments of the robot.
3. Therefore, program changes or hardware part replacements are not allowed.
4. If a team fails to finish calibrating within this one minute, that team will be disqualified.

## 6.6 During the Match

1. The teams must place the robots entirely inside the arena at the start of their fight.
2. When the referees give the signal, the robot can be switched on.
3. To win, one robot must knock the other robot out of the arena within the time. After that, the battle will be over.
4. The allocated time for each match will be 5 minutes.
5. If the robot did not knock out from the arena within given time period, final decision will be taken by the referees.

## 6.7 After the Game

1. Participants may leave the arena of competition.
2. Participants take out the robot and save it.
3. Participants may only replace the battery of the robot.
4. It is not allowed to replace robots even though they are very similar.

## 7. Arena Specification

### 7.1 General Features

- The length and width of the arena will be 8ft × 8ft.
- There will be two pits located at the two opposite corners of the arena. The length and width of the pit will be 1.5ft × 1.5ft.
- The arena floor is made with metal.

## 8. Competition Coordinators

### Contact Details.

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Please do not hesitate to contact us if further information or assistance is needed.

## 9. Special Note

**This is version 1 of the guideline book.**

**The final judging criteria and battle flow will be given in a later version of this guideline document, which we will release before the competition.**