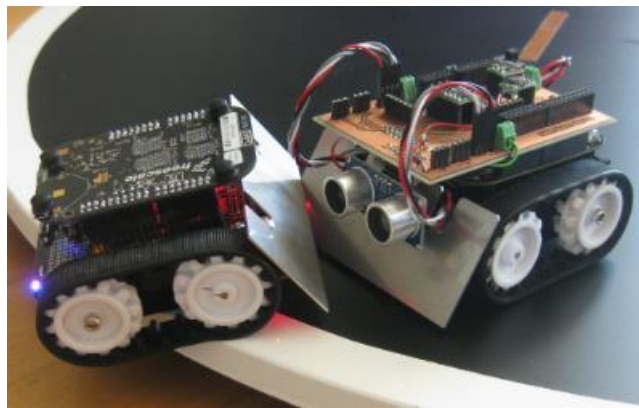
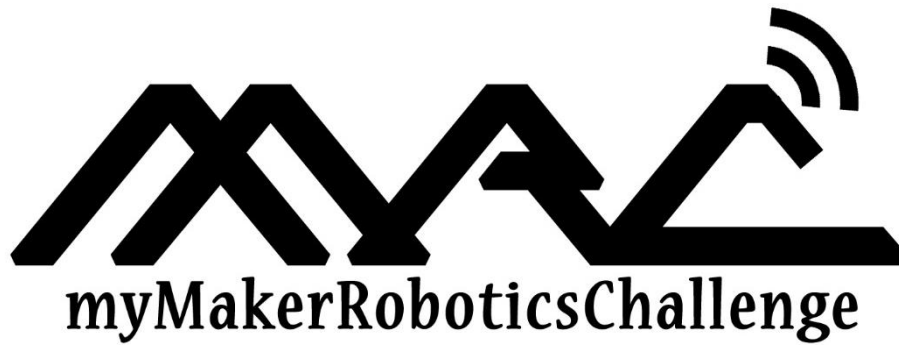




myMaker Robotics Challenge (MRC) 2018



AUTONOMOUS SUMO
RULES AND REGULATIONS
OPEN CATEGORY

Updated version 1.1: 1 March 2018

1. Objective

Participants are required to build an autonomous, self-contained mobile robot that is able to push its opponent out of the specified area according to the tournament rules. Robot handlers are to start the robot with the press of a single button.

Team Structure: This game is taken as Open Category. Each team consists of one (1) instructor and maximum of two (2) members.

2. Robot Specifications

2.1 Dimensions and Weight

2.1.1 The full extension size of the robots shall **NOT** exceed **250mm(L) x 250mm(W) x 300mm(H)**.

2.1.2 The weight of the robot shall **NOT** exceed **5.0kg**.

2.2 Restriction on the Robot Design

2.2.1 Robots shall **NOT** employ any active weapon. Projectile weapons or saw-blades are prohibited.

2.2.2 Robots shall **NOT** damage the arena deliberately.

2.2.3 Robots shall **NOT** throw liquid or powder or other substances at the opponent.

2.2.4 Robots should **NOT** secure itself on the ring surface by using, suction cups, diaphragms, sticky treads, glue or other such devices.

2.2.5 The robot is powered with **NOT** greater than 13.6 Volt by single or combination battery.

2.3 Control Method

2.3.1 The robot shall be autonomous. **No** external form of control or any external intervention is allowed.

2.3.2 The Robot **SHALL** be started with a single Toggle-type switch or Push-button.

2.4 Labelling

2.4.1 All robots **MUST** be labelled with their team names on the front/top of the robot. The minimum font size is **Arial 24**.

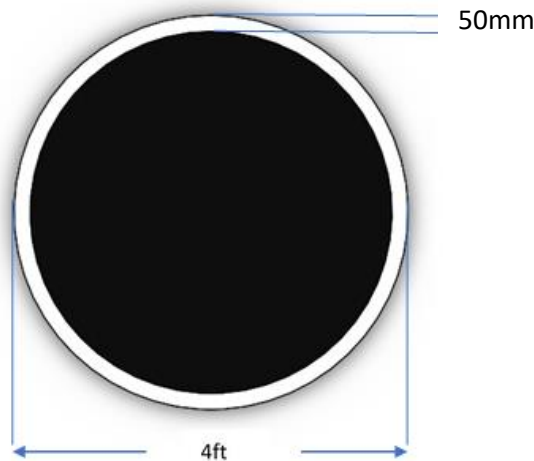
3. Arena Specifications

3.1 The game field is made of mild steel/wood which measures **1200mm(L) × 1200mm(W)** and raised to a height about 80mm (H).

3.2 The boundary of the game field is painted in white colour. The width is **50mm**.

3.3 Robots can be placed in any region within the battle zone (black colour region) according to team players' preference/strategy.

3.4 Dead Zone is defined as the ground area outside the game field (out from the white colour boundary).



4. Game Play

4.1 Game Procedure

- 4.1.1 The tournament shall divide the participating teams into groups of 4 or 6 teams.
- 4.1.2 A match consists of 3 rounds. Each round shall last for 2 minutes.
- 4.1.3 1 point shall be given to winner. 0 point shall be given to the loser. For the case of draw game, both teams will be given 0 point.
- 4.1.4 For elimination round, if a game ends with no winner, a test of strength (both robot put in opposite to each other and push) by the two robots immediately after the last match will be the decider.

4.2 Match Winner

- 4.2.1. A robot wins when the opponent robot **Falls off** from the game field or **Touches** the ground area outside the game field or **Immobilized** in the game.

4.3 Service Time

- 4.3.1 Participants will be given **1 minute** of Servicing-Time before the start of each matches in a game. A maximum of two members are allowed to service their robots at a designated area under supervision. Only replacement of identical parts and batteries are allowed.

4.4 Time Out & Retry

- 4.4.1 **NO** time out and retry is allowed.

4.5 Robot Handler

- 4.5.1 A participant is allowed to handle only one same robot throughout the event. Each robot should only have one same handler. The handler and robot will be identified during registration.

5. Others

- 5.1 The allowable margin of error to the game field in this Rulebook wherever not mentioned is $\pm 5\%$ in size.
- 5.2 For any other behaviour not specified in the rules, referees are given FULL authority to make the decision and the decision is final in the event of a dispute.
- 5.3 Any amendments to these rules will be announced by the Organizer and be updated on Digital Lifestyle Malaysia Facebook page.