

JUNIOR AUTONOMOUS ROBOT SUMO COMPETITION

1. OBJECTIVE

Participants are required to program their sumo robots so the robots are able to push the opponents out of the specified ring autonomously in according to the tournament rules. Participants are NOT allowed to remotely control the robot.

All participant must be studying in a Secondary School (or its equivalent) or 16-year-old or younger at the date of the competition. Proof of studentship must be provided upon request.

2. ROBOT SPECIFICATIONS

2.1 Robot kit set

To have a fair level of competition, the robot must be built from the iSumoBot kit set from iNOVA Microsystems Pte Ltd. (<http://www.inovamicro.com/isumobot.html>)

The size of the robots shall not exceed 20cm (length) x 20cm (width). There is no height restriction.

The weight shall not exceed 3 kg excluding the radio-controlled console used by the robot handler.

2.2 Labeling

All robots must be labeled with of their team names on the front of the robot. The minimum font size is Arial 24.

2.5 Clearing of Debris

Fallen items from the robots shall be removed after each match.

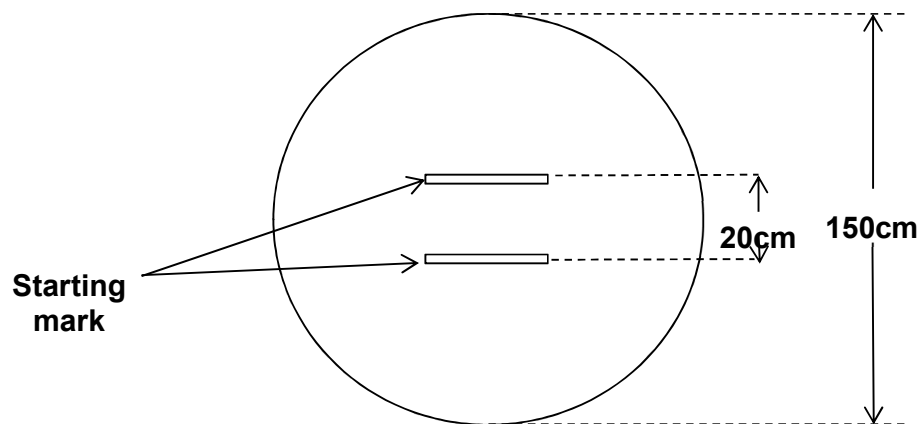
3. RING SPECIFICATIONS

3.1 Dimensions and Materials

The competition ring arena is made of aluminum sheet with natural metallic surface finishing. The diameter of the ring is 150cm. The high of the ring is at least 15mm above the floor.

3.2 Markings

There is no colored marking on the ring arena. There will be two starting lines marked physically on the surface. The marking will not alter the surface consistency overall.



4. GAMES RULES

4.1 Sumo Game

The tournament shall divide the participating teams into groups of maximum 4 robots.

A game consists of 3 matches. Each match shall last for 2 minutes. One point shall be given to every match winner. Zero point shall be given to a draw or a loser.

If a game ends with no winner, a test of strength by the two robots immediately after the last match will be the decider.

4.2 Match Winner

A robot wins when any part of the opponent robot touches the floor.

4.3 Service Time

Participants will be given one minute of Servicing -Time before the start of their 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 during the Servicing-Time.

4.4 Time Out

Each team will only be given one time-out of one minute within a game (of 3 matches). The time-out will apply after the match and only for the requesting team. Changing of battery is not allowed during the time-out.

4.5 Robot Handler

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 the registration and caging.

5. CAGING

Robots shall be inspected and caged at least 1 hour before the start of the game.