

National Robotics Competition 2018

SumoBot Challenge Manual

Organised by:

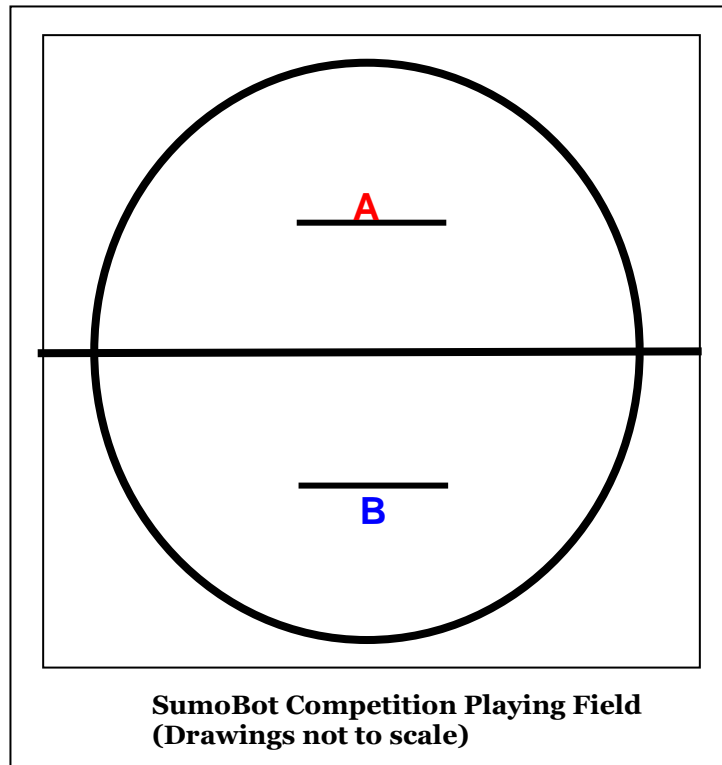


Operational Partner:



SumoBot

NRC will have the SumoBot as our side events on 8th September 2018. Participants are only allowed to use the components from ONE (1) LEGO Team Challenge Kit (RCX / NXT / EV3).



In SumoBot, two robots pit their strength and strategy against one another, somewhat similar to the Sumo wrestling sport. The robots start behind the line at position A and B. When the referee signals the start of the game, the robots must be activated and make contact with each other. The winning robot is determined through any of the following scenarios.

- i. The robot wins by pushing the opposing robot out of the circle.
 - ii. The robot wins by pushing its opponent such that both robots are in the opponent's side of the circle at the end of 45 seconds.
 - iii. If (i) and (ii) do not apply after 45 seconds, the robot furthest away from its individual starting point while pushing its opponent, wins.
- The weight of the robot must not exceed 1.1 kg.
 - Only LEGO parts set (RCX, NXT & EV3) will be allowed although RCX will be allowed up to three motors and EV3 restricted to 3 motor ports.
 - Prior to the competition, robots will undergo inspection. If they don't meet the requirements, players will be given 15 minutes to modify, otherwise, they will be disqualified.
 - Non-LEGO parts will not be allowed.

- Maximum of 3 members per team.

The overall winner is decided through a “knockout” system of play.

The Referee’s decision is **FINAL**.