



RobotChallenge - Remote Mini Sumo Rule

Short Description: As in the traditional Japanese martial arts, the robots under remote control try to push the competitor off the ring.

1. Definition of the Sumo Match

1.1. Definition

A match is fought between two teams, each team having one or more contestants. Only one team member may approach the ring; other team members must watch from the audience. In accordance with the game rules (hereafter referred to as "these rules",) each team competes on a Dohyo (sumo ring) with a robot that they have constructed themselves to the specifications. The match starts at the judge's command and continues until a contestant earns two Yuhkoh points. The judge determines the winner of the match.

2. Requirements for Robots

2.1 General Robot Specifications

- A. robot must fit within a square tube of the appropriate dimensions for the given class.
- B. The total mass of a robot at the start of a match must be under the designated weight for the given class.
- C. A robot may expand in size after a match begins, but must not physically separate into pieces, and must remain a single centralized robot. The robot's feet must not expand during the match. Robots violating these restrictions shall lose the match. If the robot drops parts greater than 5g during the competition, the opposing robot wins. If the two machines in the game drop more than 5g parts per person, the game is tied.
- D. The robot gets a number for registration purposes. Display this number on your robot to allow spectators and officials to identify your robot.

Height	Width	Length	Weight
Unlimited	10 cm	10 cm	500 g

The weight of the remote control is not included in the robot

2.2. Requirements for Remote Mini Sumo robots

- A. The remote control must be able to effectively control the stop of the robot.
- B. The available radio frequency for the remote control should be 2.4 GHz



2.3. Robot Restrictions

- A. Jamming devices, such as IR LEDs intended to saturate the opponents IR sensors, are not allowed.
- B. Parts that could break or damage the ring are not allowed. Do not use parts that are intended to damage the opponent's robot or its operator. Normal pushes and bangs are not considered intent to damage.
- C. Devices that can store liquid, powder, gas or other substances for throwing at the opponent are not allowed.
- D. Any flaming devices are not allowed.
- E. Devices that throw things at your opponent are not allowed.
- F. Sticky substances to improve traction are not allowed. Tires and other components of the robot in contact with the ring must not be able to pick up and hold a standard A4 paper (80 g/m²) for more than two seconds.
- G. devices that increase pressure, such as vacuum pumps and magnets, are not allowed.
- H. All edges, including but not limited to the front scoop, must not be sharp enough to scratch or damage the ring, other robots, or players. In general, edges with a radius of greater than 0,1 mm, as would be obtained with a unsharpened 0,2 mm thick metal strip, should be ok. Judges or competition officials may require edges that they deem too sharp to be covered with a piece of tape.
- I. If the robot causes serious damage to the field, the referee has the right to cancel the robot's right to play according to the situation.

3. Requirements for the Dohyo

Dohyo same as Mini Sumo.

4. How to Carry Sumo Matches

- A. One match shall consist of 3 rounds, within a total time of 3 minutes, unless extended by the judges.
- B. The team who wins two rounds or receives two "Yuhkoh" points first, within the time limit, shall win the match. A team receives a "Yuhkoh" point when they win a round. If the time limit is reached before one team can get two "Yuhkoh" points, and one of the teams has received one Yuhkoh point, the team with one Yuhkoh point shall win.
- C. When the match is not won by either team within the time limit, an extended match may be fought, during which the team who receives the first Yuhkoh point



shall win. Alternatively, the winner/loser of the match may be decided by judges, by means of lots, or by a rematch.

D. One Yuhkoh point shall be given to the winner when the judges' decision was called for or lots were employed.

5. Start, Stop, Resume, End a Match

5.1. Robot Placing

Upon the judge's instructions, the two teams approach the ring to place their robots on the ring. A cross in the middle divides the sumo ring into 4 quadrants. Robots always have to be placed in 2 opposing quadrants. The robots have to be placed at the border within the assigned quadrant. The robot has to cover the white border at least partially. The judge will remove the cross after positioning of the robots. After placing, the robots may not be moved anymore.

5.2. Start

The two teams main remote control players, holding the remote controller, ready to start. The referee blows the whistle and begins.

5.3. Stop, Resume

The match stops and resumes when a judge announces so. The players have to use the remote control to stop the robot.

5.4. End

The match ends when the judge announces so. The two teams retrieve the robots from the ring area.

6. Time of Match

6.1. Duration

One Match will be fought for a total of 3 minutes, starting and ending upon the judge's command.

6.2. Extention

An extended match, if called for by the judge, shall last for a maximum of 3 minutes.

6.3. Time Keeping

The following are not included in the time of the Match:

- A. The time elapsed after the judge announces Yuhkoh and before the match resumes. The standard delay before the match resumes shall be 30 seconds.
- B. The time elapsed after a judge announces to stop the match and before the match resumes.