Rules Sumo Robots – Jedobot 2018

Category:

Robotic Sumo is divided into many categories, which vary limits and measurement of the ring. Featured will be only two - Lego Mini Sumo and Lego Sumo.

category	Limit				Ring		
	weight	width	lenght	height	diameter	height	width margins
Mini Sumo	500g	100mm	100mm	no limits	770mm	25mm	25mm
Lego Sumo	1000g	150mm	150mm				

Principle:

The ring pairs competing robots. After the start, trying to push each other out of the ring. If one of your robot touches any part of the area outside the ring, loses. This is true even in the case when the robot eliminates any part and it will then be pushed, or it touches the surface outside the ring.

Robot:

The robot must be completely autonomous.

A robot may not in any case exceed the weight limit.

Dimensional limit is set at startup. After the start of the robot may be unlike weight, their size and shape in any way changed.

It itself can freely rotate or flip. The robot can also be split into several separate parts.

Dimensional control is performed profile with internal dimensions corresponding category. Profile must touch their entirety cut perpendicular pads.

Used competitive means robots must not be destructive. Strategy must not cause damage to the opponent robot or ring.

A robot may not discharge any substance not pollute the ring or the opponent robot.

In the category Lego is allowed to use only Lego parts, excluding batteries.

Competition:

Expected to take place matches everybody with everybody. In the case of multiple entrants there may be more groups or the competition will take place eliminating the way.

The match consists of three duels. Each battle lasts max. three minutes. The winning robot gets 2 points, loser 0 points. If the match is not decided within limits, it is a draw, both get 1 point. After an agreement is possible opponents end the match early.

In the case matches everybody with everybody, finally, counts the number of points and form the order. If some competitors have the same number of points, they determine the order between them match. If the match ended in a draw, competitors will share respectively or the match is repeated.

Disqualification:

The robot may be disqualified from the competition of wrestling, or from fighting.

If he is disqualified from the competition, not scored at all and looks at him as if he did not participate at all tournaments. From competition to disqualify only a serious breach of the conditions of competition (eg. fraud). If disqualified from a match, the opponent will be imputed to 6 points and disqualified 0. From games to disqualify the case, if it is after the match it finds violations of the competition.

If disqualified from combat, opponents are assigned 2 points disqualified 0. From fights to disqualify the case that in the course of combat, or immediately after the battle just ended, finds a violation of the conditions of competition and relates to breach of the rules only to a specific duel.

Robot can be disqualified by a referee only.

Wrestle:

To match the individual starting prompted appropriately. Within 1 minute, the starting obliged to come to the ring, in which it will compete.

The robot must be placed on their part of the ring. Ie. not any of its parts extend beyond the starting line.

In this its part can be freely rotated. When first fight under the first match of the starters who puts his robot, chosen by lot. In other fights first placed winner of the previous fight. If it was a draw, decides to lot again. Location has not subsequently be changed.

At the referee direction of the turn, both starting their robot. The robot can be activated by means other than pressing the switch.

The robot must be programmed to trigger their activity after five seconds, during which all persons must move away from the ring for the core. The active zone is defined by one meter space around the ring. In this zone there are no objects or people that nothing could affect the robot's sensors.

In the first five seconds they are made possible only acoustic and luminous manifestation of robots, but not physical activity.

If during the countdown starting finds that the robot does not work, or the robot moves off before the referee can give an indication. The countdown is interrupted. Clash is immediately repeated. If it happens a second time, the competitor is disqualified from the fight and loses the points to the opposing competitor. Intentional programming duration shorter than 5 seconds deduction leads to disqualification throughout the tournament.

The first robot movement the rotation is at least 90 degrees.

Referee decides the winner of the fights.

For knocking opponents has, if any of his opponent's robot parts (even one that during a match, for example, fell off) touches the area outside the ring.

Among individual matches the same robot must have a 5 minute break for service option.

Ring:

Ring is a flat disk on which robots compete. Dimensions of the ring:

- 770 mm diameter around the ring
- width 25 mm white edge
- height ring 25 mm
- the active zone of 1m from the ring
- starting lines are parallel, 50 mm away from the center of the ring

The basic surface is matt black edges of the ring are white. Starting lines are drawn in pencil or adhesive tape. The surface of the ring is solid and contains no dividing lines or ridges, which may affect the movements of the robot.