

Chapter 1: Robot Sumo

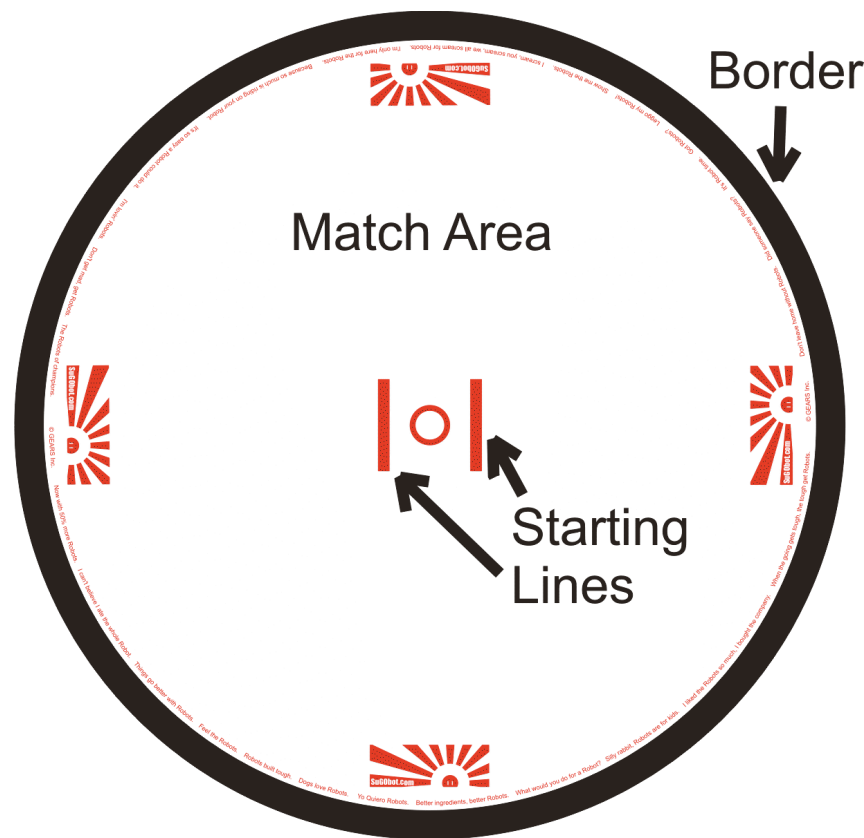
A Robot Sumo contest involves two contestants whose robots operate in the sumo ring according to the game rules presented here. Robot Sumo incorporates elements of Sumo wrestling where the objective is for each robot to attempt to push its opponent out of the ring. Each individual contest continues until four Sumo points are scored by one of the contestants, or until one of the contestants has a score two points greater than an opponent. The overall contest is structured using a double elimination tournament format, where each robot must lose two matches to be eliminated from the tournament.

Chapter 2: Playing Field Specifications

Playing Field

The playing field is a flat cylinder with the dimensions as shown in the table below.

Diameter	Height	Border line width	Starting line width	Starting line length
36 Inches	0.5 Inches	1.0 Inches	0.5 Inches	4 Inches



Field Interior

The field interior is defined as the area surrounded by and including the border line.

- The top surface is flat and smooth. The surface will be gloss-white in color.
- The starting lines are two parallel red lines centered on the field.
- The outer edge of the field, the border line, is a black circular ring.

Field Exterior

The exterior area of the field extends at least 10 Inches from the border line.

Chapter 3: Sumo Robot Specifications

- The robot must be able to fit inside a **9" x 9" (22.86cm x 22.86cm)** square box.
- The Robot Weight must not exceed **2 pounds (900g)**.
- A maximum of **2 motors** for movement **and 1 motor** for an optional tool/weapon can be used.
- The robot must be designed to wait five seconds after the contestant presses the robot's RUN button.
- All actions must be totally **pre-programmed**. The use of any form of remote control is prohibited.
- The robot will not include a device that obstructs the control of the opponent's operation, such as a jamming device or strobe light.
- The robot will not include any parts that might damage or deface the playing field.
- The robot cannot have any devices that damage or deface another robot beyond repair
- The robot will not include any part that fixes the robot to the playing field surface. The robot must always move.

Chapter 4: Game Principles

- A standard match consists of **three games** of up to **three minutes** each. The first contestant to win **four Sumo** points is the winner of the game.
- A contestant earns two Sumo points when their robot pushes the opposing robot off the playing field.
- If no player has 4 Sumo points at the end of three games, the contestant who has the most Sumo points at the end of the match will be judged as the winner.
- When neither contestant receives any Sumo points, or both contestants have the same number of Sumo points, the winner will be decided by the judges. The judge will select the winner based on which robot was the most aggressive robot. However, if no obvious superiority exists and a winner cannot be determined, one extra three-minute match can be played to determine the winner.

Chapter 5: Game Procedure

Beginning of the Game

- Before the game, the **contestants greet** each other outside the playing field following the chief referee's instructions, and then enter the playing field. After that, the contestants can put their robot anywhere behind their starting line. No part of the robot can be placed in front of the starting line before the match begins.
- At the referee's signal, the contestant presses the RUN button on the robot. The match begins five seconds after the referee's signal. The contestants must exit the playing field when the match begins.
- Prior to the start of a match, the entire robot must fit inside a square box as defined for the weight class. At any time after the start of the match, the robot can expand outside these dimensions.

End of the Game

- The game ends when the referee calls the winner. Both contestants should thank each other for a fair and competitive match after removing their robots.

Match Cancellation and Rematches

A match will be stopped and a rematch will be started under the following conditions:

- The robots are locked together in such a way that no more action appears to be possible, i.e. they have rotated in circles for 30 seconds or more.
- Both robots touch the exterior of the playing field at the same time.

- Any other conditions under which the referee judges that no winner can be decided.
- In case of a rematch, maintenance of competing robots is prohibited, and the robots must be immediately put back to starting position.
- If neither of the competing robots win, or lose, after a rematch, the referee may reposition both robots to a specified location and restart. If that does not yield a winner, the match may continue at any location decided by the referee, *until the time limit is reached*.

Chapter 6: Scoring Sumo Points

Victory

Two Sumo points are awarded for a Victory. The following conditions define a Victory:

- When a robot ejects its opponent from the playing field with a fair action. The robot is considered ejected the moment any part of the robot touches the exterior of the playing field. A robot hanging over the edge of the playing field or touching any part of the cylindrical side of the playing field is not considered ejected, and the robot is still in play.
- When the opponent's robot goes out of the playing field on its own for any reason.
- When the opponent's robot stops moving on the playing field for more than 10 seconds.
- If the opponent's operator interferes with either robot, or the field, during the match.

Advantage

One Sumo point is awarded for an Advantage. The following conditions define an Advantage:

- An opponent's operator fails to start their robot at the referee's command,
- The opponent's preparation for the start of the next match takes more than 30 seconds.
- Parts of the opponent's robot (weighing more than 1 ounce), are separated and dropped from the robot.
- Any other actions occur that are deemed unfair by the judge.

Chapter 7: Violations

A contestant who takes any of the following actions will be disqualified from the game:

- A contestant does not attend the appointed playing field when called at the beginning of the game.
- A contestant's robot does not meet the robot specifications.
- A contestant displays unsportsmanlike behavior.

Chapter 8: Injury and Accidents

Request for Suspension

When a contestant is injured due to the operation of the robot or the robot has an accident, and the game cannot be continued, the contestant can request that the game be suspended.

A referee will take immediate action necessary to take care of this situation.

Chapter 9: Objections

Objections to the Referee

Objections to the judgment of the referee may only be raised by the students competing in a match before leaving the competition area immediately the game. Decision of the referees will be final.

Objections to the Rules

A contestant who has an objection to the operating rules must express dissent to the Tournament Committee before the end of the game.

Chapter 10: Specifications of Robot Markings

Marks on the Robot

The robot must not be marked with any words, symbols, or images that are offensive to the general public.