



Rules for Robot Sumo Wrestling Competitions

Robot rules:

- The robot must be wheeled (caterpillar type is not allowed), and its total weight (including battery) must not exceed 2kg.
- The robot must be powered by batteries and must not be externally powered. The battery supply's rated voltage must be limited to below DC9V.
- Judges may conduct battery checks during registration, and those failing to meet the standards will be disqualified from the competition.
- For pre-competition registration, the robot must meet the following dimensions: length and width $\leq 15\text{cm}$ (L, W) $\leq 30\text{cm}$, height $\leq 6\text{cm}$ (H) $\leq 30\text{cm}$, with no deformable or extendable parts. Only the wheels may touch the ground; all other components must maintain a minimum 2mm clearance. (Registration compliance is verified by the 2mm plastic plates friction-free movement during inspection.)
- The robot must be designed to meet the competition venue specifications. Please refer to the sideline dimensions of the venue.

Venue:

- 1. The competition arena is a circular field with a diameter of approximately 120cm, demarcated by black lines. The field is made of printed canvas and placed on the ground to prevent the robot from falling off when it exceeds the boundary. The field may have uneven areas, which the robot must navigate independently.
- The site boundary and preliminary location are shown in the attached map.

Game rules:

- During registration, athletes draw their match numbers. Those who fail to arrive within one minute for check-in, registration, or the competition roll call will be deemed to



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- have forfeited their participation.
- All divisions follow a double-elimination format, with each match played in a best-of-three series. All three rounds are scheduled matches.
- During the competition, non-competitor teams must leave the venue. Those who repeatedly refuse to comply will be disqualified. During registration, teams must place their sumo carts in the designated area. Once registered, no additions, modifications, disassemblies, or alterations to the carts configuration are permitted.
- Each team must provide its own sumo vehicle. Any unauthorized exchange of equipment or parts between teams is strictly prohibited, and teams found to be in violation will have their qualifications revoked.
- Only one player may compete per round, with different players allowed per round. The 1-minute preparation time permits equipment adjustments and battery replacements, but downloading programs or modifying devices is prohibited.
- The referees whistle signals the start. After both wrestlers activate their sumo cars, they must immediately retreat to the blue line area or the designated position, ensuring no human interference disrupts the match.
- When both sides sumo cars start, they must step back and touch their own black boundary line in sequence. If either rule is violated, the turn is considered a loss, and the opponent wins.
- The robot is considered to have failed (the opponent wins) if the following conditions are met:
 1. The robot was ejected from the field when any part of its body touched the blue boundary edge.
 2. The robot left the site on its own.
 3. The robot did not meet the competition rules after the repair.
 4. The unilateral robot remained stationary for five seconds.
 5. The robot overturns, falls, or is knocked down (determined when its power wheels fail to resume normal movement).



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6. Mechanical components may be detached and fall off the field (a ruling is made if the referee determines that any dimension of the object exceeds 3 cm or significantly impacts the game).
- Each round is limited to 1 minute, and the referee will make a decision based on the situation at the end of the time limit.
 - During the match, if both sumo cars remain stationary in a standoff, the referee may declare a stalemate. The referee will then start a countdown, and after 5 seconds, the timing will pause. The cars will retrieve their equipment and disconnect the power, then restart the match using the remaining time of this round.
 - After each round begins, no further reassembly or part replacement of any components in the sumo vehicle is permitted. At the end of each round, if either competitor requests repairs, both teams may perform repairs simultaneously. Once the referee announces the start of repairs, a 1-minute countdown begins. Only the competitor currently in the ring may perform repairs, while teammates are prohibited from entering the ring to assist.
 - After the repair begins, both parties may reassemble the sumo vehicle or reorganize the dropped parts at the original location, but they must not add or remove any parts, nor download programs or replace batteries.
 - The referee will record the match results, which must be signed by the team for verification. Any disputes must be raised immediately. The referees recorded results cannot be challenged by players after they leave the field or the match concludes.
 - Any questions or objections must be raised to the referee immediately before the match begins, and the referee will handle and rule on them. Once the match starts, no further objections will be accepted. In case of disputes, the chief referees decision shall be final and binding.
 - The tournament provides competition venues for teams to conduct pre-competition testing. Teams must arrive at the designated venue within the announced time slot to queue for sumo vehicle testing. All participating teams are required to bring their own sumo vehicles, and must refrain from



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damaging or defiling the practice area. Severe violations will result in disqualification. If any team causes damage or defilement during the match, the competition will be immediately halted, and the opponent will win the match.

