RoboRumble: Sumo Wrestling Bot Challenge

Table of Contents

1. Introduction

1.1 About the Competition

The RoboRumble: Sumo Wrestling Bot Challenge is a robotics competition that challenges teams to design and build autonomous robots capable of competing in sumo wrestling matches.

1.2 Objective

The primary objective of the competition is to promote robotics engineering and innovation by simulating the exciting and strategic sport of sumo wrestling using autonomous robots.

1.3 Eligibility

The competition is open to students, robotics enthusiasts, and technology enthusiasts of all ages. Each team can have a minimum of 1 member and a maximum of 4 members.

1.4 Competition Dates and Location

The competition will take place on [Date] at [Venue]. Detailed schedules and event information will be provided to registered teams.

1.5 Organizers and Sponsors

The competition is organized by [Organizing Entity], in collaboration with [Sponsors]. The organizers are committed to providing a fair and exciting competition environment.

1.6 Contact Information

For inquiries and additional information, please contact [Contact Name] at [Contact Email] or [Contact Phone].

2. Competition Overview

2.1 Arena Design

The competition arena will be designed to resemble a sumo wrestling ring, complete with a circular boundary and a contrasting center circle.

2.2 Robot Specifications

- Robots must be capable of autonomous operation and pre-programmed before the competition.

- Robots should adhere to [Dimensions] size limits and [Weight Limit].

- Robots should be designed with a sumo wrestling strategy in mind.

2.3 Team Composition

Each team can have a minimum of 1 member and a maximum of 4 members. Teams are responsible for designing, building, and programming their robots.

3. Rules and Guidelines

3.1 Robot Design and Build Rules

- Teams are responsible for designing and building their own robots.

- Robots should adhere to size and weight limits specified in the rules.

- Robots must be safe to operate and should not pose a danger to participants, spectators, or judges.

3.2 Sumo Wrestling Rules

- Robots must autonomously navigate and attempt to push their opponents out of the ring.

- Matches are won by either pushing the opponent out of the ring or immobilizing the opponent.

3.3 Robot Interaction Rules

- Robots must interact with opponents within the designated ring area only.

- Robots must not damage the arena or interfere with other robots.

3.4 Scoring and Objectives

- Points are awarded for successfully pushing the opponent out of the ring or immobilizing them.

- Matches are scored based on the outcome of the sumo wrestling round.

3.5 Safety Regulations

- Safety of participants, spectators, and judges is a top priority.

- Robots should not pose any danger to people or other robots.

3.6 Fair Play and Conduct

- Teams are expected to follow the competition rules and exhibit good sportsmanship.

- Any attempts to gain an unfair advantage may result in disqualification.

3.7 Referees and Judge Decisions

- Referees oversee the matches and enforce the rules.
- Judges evaluate robot interactions and determine the winner of each match.

3.8 Penalties and Disqualifications

- Penalties may be applied for rule violations or unsafe behavior.
- Serious violations may lead to disqualification from the competition.

4. Competition Rounds

4.1 Match Structure

- Each team competes in a series of sumo wrestling matches against other teams.
- The team's robot starts from a designated starting point within the ring.

4.2 Starting Points and Robot Activation

- Robots are activated from the starting point using pre-programmed instructions.

4.3 Sumo Wrestling Matches

- Robots autonomously navigate and compete in sumo wrestling matches.
- The goal is to push the opponent out of the ring or immobilize them.

4.4 Completion and Winner Determination

- A match is completed when one robot pushes the opponent out of the ring or immobilizes them.
- The robot that wins the majority of rounds wins the match.

5. Scoring and Rankings

5.1 Scoring Criteria

- Points are awarded for winning each round of sumo wrestling.
- Higher points are awarded for successfully pushing the opponent out of the ring.

5.2 Bonus Points

- Bonus points may be awarded for exceptional strategy or performance.

5.3 Tiebreaker Rules

- In case of tie scores, a tiebreaker round may be conducted to determine the winner.

5.4 Announcement of Winners

- Winners will be announced at the award ceremony.

6. Safety and Regulations

6.1 Participant Safety

- Participants must adhere to safety guidelines and instructions.
- Proper attire and safety gear are required in designated areas.

6.2 Robot Safety

- Robots must be designed to operate safely in the competition environment.
- Robots should not pose any danger to people or other robots.

6.3 Emergency Procedures

- In case of emergencies, participants must follow instructions from event staff.

7. Registration and Participation

7.1 Team Registration

- Teams must register for the competition by the specified deadline.

- Registration details and forms can be found on the official website.

7.2 Team Responsibilities

- Teams are responsible for their own transportation, accommodation, and equipment.

7.3 Robot Inspection

- Robots must undergo an inspection to ensure compliance with the rules.

- Inspection checklist and requirements will be provided to teams.

8. Judging and Evaluation

8.1 Judging Panel

- Referees and judges oversee matches and enforce rules.

- Judges evaluate robot interactions and determine round winners.

8.2 Evaluation Criteria

- Matches are evaluated based on the outcome of each round.

8.3 Transparency and Appeals

- Referees' decisions are final, but appeals may be considered based on merit.

9. Prizes and Awards

9.1 Prize Categories

- Prizes will be awarded to top-performing teams in various categories.

9.2 Award Ceremony

- The award ceremony will take place after the competition rounds.

10. Media and Documentation

10.1 Media Coverage

- Participants may be photographed or filmed during the competition for media coverage.

10.2 Documentation Requirements

- Teams are required to submit documentation detailing their robot's design and strategy.

11. Code of Conduct

11.1 Professionalism and Respect

- Participants are expected to behave professionally and treat others with respect.

11.2 Sportsmanship

- Good sportsmanship is expected throughout the competition.

12. Appendices

12.1 Glossary of Terms

- Definitions of key terms used in the rule book.

12.2 Arena Diagram

- Diagram illustrating the layout of the sumo wrestling arena.

12.3 Robot Inspection Checklist

- Detailed checklist for robot inspection.

[End of Rule Book]