

Ninja-Clash



Task:

Bot wrestling is basically a competition of two wired or wirelessly operated robots competing in an attempt to push the opponent out of the arena. These robots must be manually operated.



Event Specification:

The arena consists of one circular area with black border which is surrounded by a **green zone**. The aim of the robot is to push the opponent's robot out of the **black ring** that is in the **green zone**. Every team gains **30 points** for pushing the opponent's robot in the green zone. **10 points** are deducted from the team's score if it enters the **green zone** on its own. Winning teams of the qualifier rounds will go for the knockout rounds.



Rounds:



1. Qualifier round will be held prior to the knockout round. The duration of the qualifying round will be 3 minutes.
2. In each match, two teams will compete against each other at a time to try to earn maximum points, the team with maximum points at the end of the match will qualify for the next round.
3. Top teams of the qualifier rounds will qualify for the knockout rounds. Other than this, the performance in the qualifier round is of no significance to the contest.



1. Two teams will compete against each other like in the qualifier one. There will be three rounds in a knockout round match.
2. Each round will have a duration of 3 minutes. The team that pushes the opposition robot out of the arena (i.e. outside the black ring) is declared as the winner of that round.
3. The team which wins two rounds first will be declared the winner of the match.
4. The scoring pattern will be uniform throughout and the scores will be considered only in case of a tie i.e. if no team is able to push the opponent's robot out of the arena in that round.
5. In case of a tie in a round (i.e. none of the team's robots is able to push the opposition robot out of the arena), the winner will be decided by the points earned by each team in that round.
6. In case of a tie in the match, the winner of the match will be decided by referee.



RULES:

1. Qualifier Matches: Each match consists of 1 round.
2. Knockout Matches: Each match consists of 3 rounds.
3. Before the match 1 minute setting time will be given. The run time clock will commence after that 1 minute time limit even if the handler is still adjusting the robots.
4. 30 seconds setting time will be given in between the rounds.
5. The robot must start from the starting point. The operator may abort run at any time.
6. In such a case, the opposite team will be declared as the winner.
7. No hand touches are allowed in between the matches unless both the operators of the respective robots want a restart.
8. Judges' decisions shall be treated as final and binding on all.
9. Power source will be provided by organisers.



MACHINE SPECIFICATIONS:

- a. The machine should fit in a square of 300mm x 300mm x 200mm.
- b. The combined weight of the robot and the remote must not exceed 5 kg.
- c. The robot must be stable and must stand on its own at the beginning of the run when put in the starting point. Robots not fulfilling this criterion will be disqualified.
- d. During the match, the robot can expand itself provided it does not damage the arena in any way. However, the machine should not leave anything behind while competing. The machine should not scratch, damage or destroy the arena or accompanying parts of the arena. The machine should not shoot anything at the opponent's robot.
- e. Any robot found damaging the arena will be immediately disqualified. The final decision is at the discretion of the organisers.
- f. Ready-made (market sold) robots with or without modifications will not be allowed in the competition.



POWER SUPPLY

- a. Machine must be completely self-contained and should receive no outside assistance.
It should not use an energy source employing a combustion process.
- b. Voltage on the machine at any point should not exceed 12.5 V DC.

NOTE:



- Required equipment kits will be provided by the organisers. You can also use your own upgraded components unless or until you are not violating the rules.
- If the components from the kit get damaged by participants, the team will be responsible and will have to pay for it.
- The whole kit will be taken back from teams by organisers.



TEAM SPECIFICATIONS

1. A team may consist of 2 to maximum of 4 members.
2. Only students of Shree Guru Gobind Singhji Institute of Engineering And Technology and Invited colleges can participate in the competition.

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GAMEPLAY



TASK:

Bot wrestling is basically a competition of two wired or wirelessly operated robots competing in an attempt to push the opponent out of the arena. These robots must be manually operated.



ARENA:

- a. The arena will be square in shape of side 2100mm.
- b. The main arena will be circular in shape. The diameter of the outer circle is 1750 mm and the thickness of border is 50 mm.
- c. The inner circular area is in two colours. The one semi circular half is of red colour and the other is of blue colour. The outer area is GREEN in colour and is called the “GREEN Zone”.
- d. The width of the centre black line which divides the arena into two equal halves is negligible.
- e. There are white squares of 300 mm x 300 mm on the opposite sides of this line that indicate the starting zones of the two competing teams.
- f. The arena will be made up of wood and the markings on it including all the zones will be drawn using paint.



GENERAL RULES:

1. Any team that is not ready at the time specified will be disqualified from the competition automatically.
2. The Bots will be checked for its safety before each match and will be discarded if found unsafe for other participants and spectators.
3. Team members will not be allowed to step in the arena. Only organisers are allowed in any situation. The team will be disqualified if any of the team members steps on the arena without the approval of the presiding organisers.
4. Only two members of the team are allowed to handle and operate the robot.
5. Participants are not allowed to keep anything inside the arena other than its robot.
6. No robot is allowed to use any flammable, combustible, explosive or potentially dangerous processes.
7. Proper protection majors from short-circuiting of batteries are required to be taken by participants for the safety of everyone present at the arena.



8. The time measured by the organisers will be final and will be used for scoring the teams. Time measured by any contestant by any other means is not acceptable for scoring.
9. In case of any disputes/discrepancies, the organisers' decision will be final and binding. The organisers reserve the rights to change any or all of the above rules as they deem fit. Change in rules, if any, will be highlighted on the website and notified to the registered teams.



POINTS:

- a. One match will be of total time of 5 minutes, unless extended by the judges.
- b. Each team earns 30 points for pushing the opposition in the GREEN zone.
- c. If a robot goes in the GREEN zone on its own without being pushed by the opponent robot, then 10 points will be deducted from the teams score entering the GREEN zone. No points will be given to the opponent in such a case.
- d. The team who scores more points within the time limit, will win the match.
- e. If the time limit is reached and both the team scores equal points, then an extended match may be fought. During extended time, the team who scores first will win the match. The score of teams may be negative.
- f. Judge's decision shall be treated as final and binding to all.
- g. The organisers reserve the rights to change any or all of the above rules as they deem fit.



HAND TOUCH:

1. No hand touches are allowed in between the matches unless both the operators of the respective robots want a restart.
2. If a restart is taken then both the robots will be placed back in their respective starting zones.
3. Even if a participant takes a hand touch without permission, the clock will keep running and will not be reset and the 10 points will be deducted.

NOTE:

- Required equipment kits will be provided by the organisers. You can also use your own upgraded components unless or until you are not violating the rules.
- If the components from the kit get damaged by participants, the team will be responsible and will have to pay for it.
- The whole kit will be taken back from teams by organisers.