

## Event Focus:

Due to an overnight firing near the borders, some of the roads connecting the military base camp have been severely destroyed. The camp has lost all its contacts with the headquarters and is running very low on food and supplies. After answering the distress call, the headquarter has sent an autonomous bot to mend the destroyed road so that the military vehicle containing the food and other requirements can easily reach the military base camp. As the bot shall be moving very close to the line of control there are higher chances of conflicts, thus the bot has to automatically detect the obstacle and remove it with a rack and pinion attached to it and hence we shall be expecting the least casualty.

## RULES:

1. The teams should take complete responsibility for their bots. College shall not take any responsibility if the bots are misplaced, damaged, stolen or destroyed. This applies for in house teams as well.
2. A team must have a minimum 3 members and a maximum of 5 members. A team must comprise of members from the same colleges.
3. We will measure your bot again at the beginning of your run. If the specifications at the time of registration does not match the one at the time of your run (with the tolerance level of $3 \%$ ), you will be disqualified.
4. A bot cannot be shared by 2 or more teams. Each team needs to have their own bots.
5. Using unfair means will lead to disqualification and we shall also withhold the prize money if the winning team in question is found to be guilty.

## Technical Constraints:

1. The size of the bot must not exceed $20 \mathrm{~cm} * 20 \mathrm{~cm} * 20 \mathrm{~cm}$.
2. Individual parameters to be measured with a tolerance of $10 \%$.
3. The robot may use an external or on-board power supply.
4. The potential difference at any two points of the robots must not exceed 12 V . In case of external power supplies and/or wired communication, pulling wires to alter the movement of the robots WILL NOT BE TOLERATED AT ALL and the responsible team will be DISQUALIFIED.
 CINE OF CONTROL

## Arena Specifications

1. The width of the line will be 2.5 cm (approx.).

## Event Rules

There will be two rounds:
Prelims
Finals

## Prelims:

- Two bots will be placed simultaneously on the track, each bot has to follow its own path and reach the destination.
- After reaching the destination, both the bots will find an obstacle on its path.
- It has to stop itself at distance 5 cm away from the obstacle, points shall be deducted in case any part of the bot touches the obstacle.
- The bot which will perform this task earlier will be made winner and shall qualify to the next round.
- Hand touches, time outs and restarts will be given which shall cost negative points.


## Finals:

- The bot will be placed on the track containing several obstacles; it has to use the hand mechanism to remove the obstacles to make the line continuous.
- The rack and pinion mechanism should not begin when the bot is in locomotion.
- The bot has to successfully remove all the obstacles and reach its destination.
- This round is a time trail round and the time taken to complete the task will play a crucial role.
**IN ANY CIRCUMSTANCES THE DECISION OF THE COORDINATORS WILL BE FINAL


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