

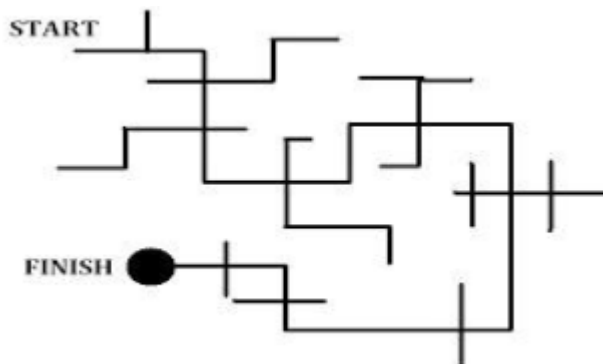




- Among all the bots, only a bot which completes the run will be given an opportunity to participate in further rounds.
- The bot which completes the run in minimum time can choose its position of play in 2nd round.
- The bot which moves steadily will be given an additional 20 points by the organizer.

### **KNOCK THE END:**

- In this round the bot must start from the ‘Start Zone’ and find its way to reach the ‘End Zone’ (Indicated in figure 1 of the arena).
- The arena will not have any loops.
- The bot has to give a signal (like glowing an LED) as soon as it senses the finish block for which it will be awarded 5 points. The most innovative signaling will be given additional 10 points.
- The bot can follow any algorithm to find its path to reach end zone and bot can store the turns in its memory.
- The finish block will have dimensions 100mm\*100mm (l\*b).
- Any bot reaching the end will be given 50 points.





**Fig2.**

### **GET SET GO:**

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- In this round the bot has to start from the Start position and reach the End position and finally come back to the start position in minimum time (time will be measured between endpoint to start point).
- Any bot which completes the task will be given 70 points and the bot which completes first will be given additional 30 points.
- Most memory efficient algorithm will be given 15 points extra.

### **BOT SPECIFICATION:**

- The autonomous bot must fit into the box of dimension 250 mm X 250 mm X 250 mm (hxlxb).
- Bot must be started individually by only one switch. However a team may have on board switch for restart. This switch has to be shown to the organizer before the run.
- During the run, the autonomous bot must not damage the arena in any way. It is not allowed to leave anything behind or make any marks while traversing the arena. Any bot found damaging the arena will be immediately disqualified. The final decision is at the discretion of the organizers.
- Bot must have on board power supply.
- When using the electric power supply, the potential difference between any 2 points must not exceed 24 V at any point of time during the game.
- The autonomous bot should not separate or split into two or more units. All bots/units which are touching each other or are in the starting point will be considered as one bot.



- Machine cannot be constructed using readymade 'Lego kits' or any readymade mechanism. But they can make use of readymade gear assemblies. Violating this clause will lead to disqualification of the team.

## **GAME RULES:**

- The teams will have to submit their bot and code before the start of the competition. Only those teams which submit their bots will be allowed to participate. The bot will be handed back to the team.
- During the time of their run. They will be given 1 minute for calibration. If any team is found to alter its code after depositing its bots, then it will be immediately disqualified from the competition. They are however allowed to make any other hardware changes.
- Only one autonomous bot per team is allowed.
- When the autonomous bot starts, no team member is allowed to touch the bot or enter the arena.
- At the start of the task, the bot will be placed at the starting point. Only 1 team member is allowed to be near the game field while starting the bot.
- Run will start only when organizers give the signal.
- The starting procedure of the bot should be simple and should not involve giving bot any manual force or impulse in any direction.
- Any bot will be given at most 3 restarts at the cost of 5 points.
- The timer will not be set back to zero and will not be paused.
- During a restart, a contestant must not feed information about the arena to the bot. However, contestants are allowed to adjust sensors (gain, position etc.) and make hardware changes.
- The contestant must not alter the bot in any manner that reduces its weight (e.g. removal of a bulky sensor array or switching to lighter batteries to get better speed). The organizers reserve the right to arbitrate in such circumstances.



## **GENERAL RULES:**

- Only 1 member of the team is allowed to handle the bot.
- Participants are not allowed to keep anything inside the arena other than the bot.
- Laptops/personal computers are not allowed near the arena. Other Wi-Fi, Bluetooth, etc. devices must be switched off. The organizers hold the right to check for these devices and their usage and disqualify the team.
- The time measured by the organizers 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.
- In case of any disputes / discrepancies, the organizers' decision will be final and binding.
- The organizers reserve the rights to change any or all of the above rules as they deem fit.
- Only one team is allowed to be present during the run, other teams will have to stay outside the hall. No team is allowed to take photograph or record their run.

## **SCORING:**

A= First come First Serve round (maximum 20 points).

B= KNOCK THE END (maximum 65 points).

C= GET SET GO (maximum 115 points).

D=No. Of Restarts \* 5.

Total=A+B+C-D.

**Result:** The Bot with maximum total will be announced as winner.

## **CONTROLS:**

- The bot must be completely autonomous.
- The bot should not receive any kind of input from outside the arena. Team Specifications:



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- A team may consist of a maximum of 4 participants. Students from different educational Institutes can form a team.

### **ELIGIBILITY:**

- All students with a valid identity card of their respective educational institutes are eligible to participate.

### **Certificate of participation:**

- The participation certificate will be awarded to teams scoring minimum of 50 points.

### **CONTACT DETAILS:**

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