

AMIGO-ROBO

THEME:

Two friends, M and L are lost in Spain. They have to reach Seville as fast as they can, so they decide to split up. On their way, they encounter several hurdles and find out that they have to accomplish some specific tasks in order to reach Seville. For crossing their respective paths, both these friends need to come up with a game plan to synchronize so that they can separately reach their destination and they need your help in doing that.

Help the two friends by using your skills and building a Manual Bot to help M and an Autonomous Bot to help L find their way back home. The bots should be capable of performing their respective tasks precisely and in least possible time to help them accomplish their tasks.

EVENT SPECIFICATIONS:

The arena will consist of two tracks. One will be a line follower track with a line of black colour on a white background and the other will be a manual robotics track. Your primary task is to develop an autonomous robot capable of following the track with the fastest and most accurate results but simultaneously you have to run a manual robot in the combined track.

However, simply following the track will not ensure victory. Both the robots need to run in synchronization and the line follower should be able to perfectly follow the path while the manual robot is occupied in tasks and hurdles that will give your team an edge over the others.

GAME RULES:

The teams will have to submit their bots 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 a time of **1 minute for calibration** (for autonomous bot). If any team is found altering its code or changing the mechanism after depositing its bots, then it will be immediately disqualified from the competition. They are however allowed to make any other hardware changes.

Round 1:

- The autonomous bot will start from the start line in the autonomous zone itself.
- And simultaneously the manual bot in the manual zone.
- When both the bot start, no team member is allowed to touch them.

- The autonomous bot has to detect the hindrances and has to stop there as it is not allowed to drag the obstacle
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- Run will start only when the organizer gives 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.
- The manual bot is prohibited to enter the autonomous zone and vice versa.
- Regarding manual bot, it can traverse the manual arena number of times he want but scores will be given once .
- 12-Team can skip the task/hurdle no. of times he/she want. But negative points of two skip will be deducted at max.
- The team is required to be present at the arena at least 15 minutes before the scheduled time of its run.

EVENT RULES:

- The event will consist of two rounds.
- Each run will have a time-limit of 9 minutes.
- If a team exceeds the time limit, the points earned up to then will be added up, and any task currently in progress will be abandoned.
- In case of any problems during the run, a time-out of 60 seconds will be given to rectify the problem. After this, the team must either resume its run or forfeit it. A maximum of 2 time-outs will be given.
- In case of man-handling, the bot will be placed at the last checkpoint that it cleared.
- A team cannot skip any section of the track without at least attempting it once.

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 organisers hold the right to check for these devices and their usage and disqualify the team. The bot should not receive any kind of input from outside the arena.
- There can be a maximum of 4 members in a team.
- Machine cannot be constructed using Lego kits or any ready-made mechanism, but ready-made gear assemblies can be used. Violating this clause will lead to direct disqualification of the team.

- The bot can use on-board or external power supply for manual bot only.
- However any fault or disconnection would be the responsibility of the participants. Participants will be provided with 12V DC and 24V DC power supply for manual bot only.
- 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.
- In case of any dispute/discrepancy, the organisers' decision will be final and binding.
- Video proofs will not be considered for re-evaluation.
- 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.

TEAM SPECIFICATIONS:

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

SCORING RULES:

To be uploaded soon...

ELIGIBILITY:

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

COORDINATORS:

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