TERRAIN TREADER 4.0

Event intro:

Terrain Treader 4.0, one of the most eye-catching events under the Robotron module, is an unparalleled event for testing your technical knowledge and problem solving ability. Your task is to construct a bot that can move effortlessly over a variety of terrains, overcome the obstacles placed along the path and emerge a winner.

Task/Problem statement:

- ❏ To construct a manual bot capable of grabbing, lifting and pushing blocks, maintaining its stability and speed over a wide range of obstacles and overall robustness across multiple terrains.

General Rules:
1. The organizers reserve the right to disqualify any team indulging in misbehavior or violating any rules.
2. Any team that is not ready at the specified time will be disqualified automatically.
3. Time and points measured by the organizers would be final.
4. In case of any discrepancies/disputes the organizer's decision will be final and binding.
5. The organizers deserves the right to change any rule. The changes highlighted on the website and will be notified to the registered teams.

Game Rules:
- Each team will be given a maximum of **five** minutes as technical timeouts.
- There will be a limit to the maximum time given to any team, to complete the arena. The maximum time would be notified to the students prior to the event.
- In case of a tie among teams on the basis of points earned, the faster team would be considered the winner.
- If any bot damages the arena, negative points would be deducted from the team's total each time.
- If any teammate damages the arena, the team would be immediately disqualified.

What's New:
1. We will be checking the adaptability of the bot in different terrains like sand, rocky or mud. Also, checking the robustness of the bot as the bot have to face some non-avoidable obstacles.
2. New 360° sweepers have been added as obstacles. Also, for the first time, elevated tracks will be used which will check the weight distribution of the bot.
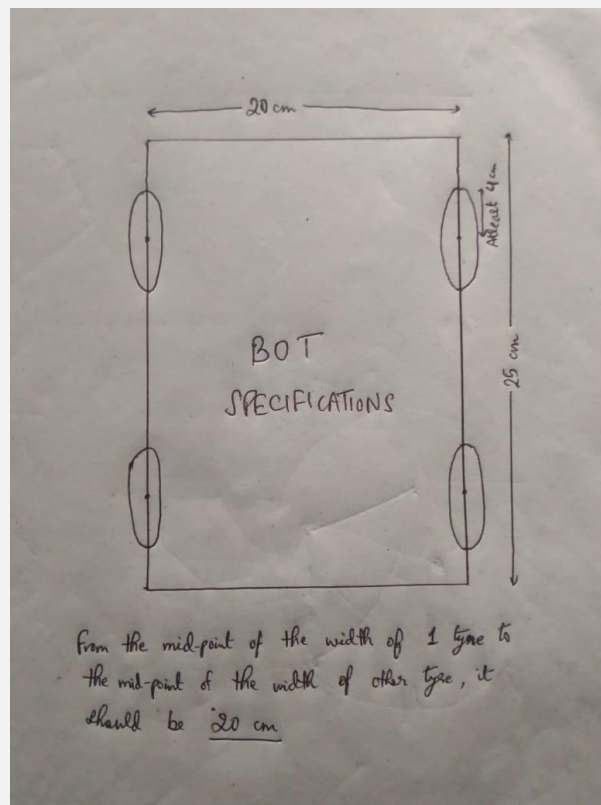
3. A see-saw bridge has also been added to check the control of the bot.
4. The final round will be a surprise!

Team specifications:
- Each team must comprise of 5 members.
- Each team must have a leader.

Bot specifications:
- The dimensions of the bot should be 25cm X 20cm (the wheels can bulge out slightly from the base of the bot).

- The bot may be wired or wireless.
- The bot must not be made of Lego kits or readymade assembly kits.
- The bot should must contain an arm (rotatable by atleast 180°) or a hand to pick/push/pull/throw objects. (Teams with a 360° rotatable arm will be more benefitted)

- It can have any number of tyres. (Max 6 tyres)
- Radius of the tyres should be more than 4 cm. (Width can be variable)
- A power supply of 12V dc adapter will be supplied for the bot.
- The speed of the motor should not exceed 150rpm.

Organisers:
- Rishiraj Paul Chowdhury (Contact No. 9706262131)
- Akash Hazarika(Contact No. 8471876020)
- Yuvraj Kumar(Contact No. 8084791891)
- Nitesh Pandey(Contact No. 8011648293)
- Fahad Sameer Islam (Contact No. 7002185308)
- Vaibhav Pal (Contact No. 9140531754)
- Anshika Gupta (Contact No. 7426973427)