

DELHI PUBLIC SCHOOL, BHILAI (C.G.)

Inter- House Tinkering Fest 2025

Criteria for shortlisting

- For Robo- Race (6th to 8th) -

- 1) Only students of class 6 to 8 can group and form a team.
- 2) The participating team must contain minimum 2 and maximum 3 members.
- 3) Single participation is not allowed.
- 4) The safety of the robots and/or its components will be the responsibility of the concerned students of the teams.
- 5) Students are free to choose any controlling mechanism- Bluetooth or Wi-Fi or RF.
- 6) The shortlisted team can have students of 6th, 7th or 8th in aforesaid numbers or even in mixed combination.
- 7) The event is a racing event, so the teams are required to design the robot in a way that it will be light in weight and do not slip on the arena. Wheels of the robot, hence, must be selected accordingly.
- 8) The team with the best robot is to be selected. Hence, the teacher Incharge will be instructing the students (who bring the complete robot) to operate the bot and the teacher will be checking for the following :-
 - a) Any lag or malfunction while running.
 - b) Wheels should be intact and should not slip.
 - c) No sharp edges in the robot chassis.
 - d) The robot should not be connected to anything that can damage the arena.The bot with least or no significant deviations from above is to be selected from each house.
- 9) Only **one** team is to be selected per house.
- 10) Students should not be allowed to bring smartphones to the school. The teacher incharges are to ensure that the students are communicated accordingly and for testing the bot, the teachers can use their mobile phones or of the ATL faculty.
- 11) The houses can have their own criteria for selecting the best team who will represent their house in the event. They should conduct an internal selection round by **25th July 2025**.

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Criteria for shortlisting

- For 'Drag N Place' (9th to 12th)-

- 1) Only students of class 9 to 12 can group and form a team.
- 2) The participating team must contain minimum 2 and maximum 3 members.
- 3) The team to be shortlisted can have students of 9th, 10th, 11th or 12th in aforesaid numbers or even in mixed combination.
- 4) Single participation is not allowed.
- 5) The safety of the robots and/or its components will be the responsibility of the concerned students of the teams.
- 6) The teams are required to design the robot in a way that it will be able to drag a cube of dimensions 10 cm x 10 cm x 10 cm well in place as specified in the arena.
- 7) Students are free to select any dragging mechanisms to be attached to the robot for efficient dragging.
- 8) The team with the best robot is to be selected. Hence, the teacher Incharge will be checking for the following during the selection round :-
 - a) Any lag or malfunction while running.
 - b) Wheels should be intact and should not slip.
 - c) No sharp edges in the robot chassis.
 - d) The robot must be able to drag a box of a given weight without lagging or losing control.

The bot with least or no significant deviations from above is to be selected from each house.
- 9) Students should not be allowed to bring smartphones to the school. The teacher incharges are to ensure that the students are communicated accordingly and for testing the bot, the teachers can use their mobile phones or of the ATL faculty.
- 10) Only **one** team is to be selected per house.
- 11) The houses can have their own criteria for selecting the best team who will represent their house in the event. They should conduct an internal selection round by **25th July 2025**.

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Specifications for the robots for the event

- 1) The teams are required to make a *wireless Bluetooth controlled RC car*, controlled by a smartphone. Alternatively, they can make a Wi-Fi controlled or RF remote based robots.
- 2) The wireless (Bluetooth or Wi-Fi controlled) bot must fit into the box of dimensions 220 X 220 X 220 all in mm (lxbxh) and must not weigh more than 3 kg.
- 3) The robot must have an 'on board' power supply of not more than 12V DC.
- 4) The components must be mounted on a chassis which is durable. Any material chassis can be used.
- 5) The robot should not have any identification mark during the event.
- 6) The robot should not have any sharp edges or projections that would hurt anyone or damage the arena.
- 7) The robots should preferably use Li- ion batteries or LiPo batteries for their power requirements.