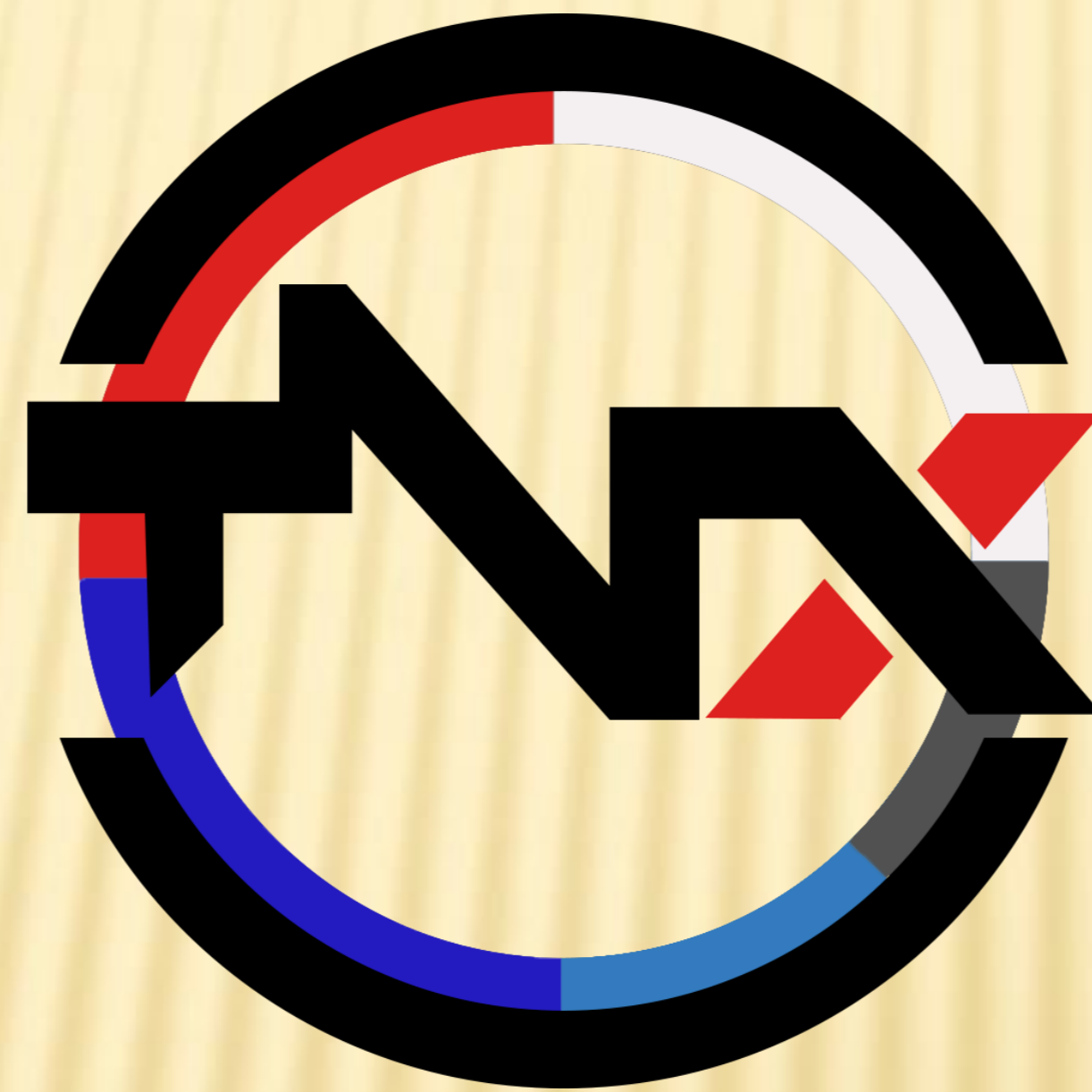




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**TECHNEX'19**



# CRANE- BOT 4.0

*Pick and Place..*

*To Win the Race....!!*

# INTRODUCTION

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- CRANE-BOT is one of the legacy robotic event of TECHNEX, started from the year 2016.
- It is basically a “Pick And Place Robot Event” , where an *R.C.* robot which works as a Crane(i.e. crane-bot) has to pick and place objects overcoming obstructions on the predefined track in minimum time duration.
- There are two rounds having two separate Arenas (tracks with obstructions).
- First round is the Qualifying Round and second round is the Final Round.
- The robot that finishes its assigned task with minimum time duration, will win the competition.

# STAGES OF COMPETITION

## Round 1: Qualifying Round

- As soon as the round starts, the robot has to pick up blocks from a given location and place them in the other location (zone).
- Eventually, the bot has to build a two storey pyramid in that zone.
- Top 15 teams completing the tasks with minimum time will be qualified for the next round.

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## **Round 2: Final Round**

- This round will contain stationary as well as moving hurdles.
- The round is specially designed to check your control over your robot.
- In this event, you pick and place to claim the prize, hence this round will also check how smart and accurate your moves are to pick, place and cross the hurdles.

# ROBOT SPECIFICATION

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- Both wired and wireless robots are allowed.
- Robot's base size should **not exceed** 30x30cm.
- Weight **must be below** 10kg and height must **not be above** 2.5feet (including the arm of the bot).
- Wired robots **must not** have a wire more than 2 meters in length.
- Robots can be constructed using any mechanism.
- Power supply of battery **must not exceed** 26V.

# RULES

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- Each team can have maximum four (4) members. Students from different institutes can form a team.
- Decisions by jury will be final.
- Block(hurdle props) or cube must be lifted not dragged.
- Block(hurdle props) size will be less than 10x10x10cm.
- Only two persons from a team can enter the arena zone for operating the robot.
- Robot must follow the given specifications.
- 10 seconds will be added in time as foul for bot hand touch.
- Violation of any rule or misbehavior will lead to disqualification.

## **Rules Continued...**

- Each member of the team must contain the identity card of his/her respective institute.
- Different teams will not be allowed to compete with the same robot.
- The robot should not damage the arena.
- Unethical behavior could lead to disqualification. Faculty coordinators have all the rights to take final decision for any matter during the event.
- Rules may subject to change.



# REGISTRATION DETAILS

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- Registration charges per group : *Rs.600/-*
- Maximum 4 members per group.
- Outreach workshops are available.

# CONTACT DETAILS

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## □ CO-ORDINATORS

- ***Sarang Korde: 7038666954***
- ***Dunil Wadaskar: 9657437862***

*For further updates of the event stay tuned to our social media platforms*

- [www.facebook.com/cranebot4.0](http://www.facebook.com/cranebot4.0)
- [www.instagram.com/cranebot4.0](http://www.instagram.com/cranebot4.0)