Time for some social responsibility! Just like two sides of a coin some choose to spill litter while others pledge to clean it .While u introspect about your ideas on the green thumb, here is something that helps you retrospect on how difficult it really is to clean up behind you. So get ready to take 'Swacch Bharat' to another dimension where u get to realize what it feels like when you have to clean someone else's dirt . Gather the litter provides u with an opportunity to explore the Samaritan in you while you clean sweep the dirty waters.

Event Category: ***Manual Robotics (Amphibian)***

Problem Statement:

● *Build a terrestrial bot (wired/wireless) that is capable of traversing the arena manually and picking/dragging the wooden blocks.*

● *Build an aquatic robot (wired/wireless) that is capable of dragging the floating blocks through water.*

TASK

- The terrestrial bot will have to traverse the arena manually and carry or drag the blocks from one place to another on surface.
- The aquatic bot has to drag floating balls/blocks to dumping-zone through water.

GENERAL RULES

- A maximum number of participants allowed per team: 5 people.
- The participants will be provided with 220 Volts, 50 Hz standard AC supply.
- Participants will have to arrange for any other power supply required

for their robot themselves.

- Teams cannot tinker with their bots during the run.
- LEGO kits or its spare parts or pre-made mechanical parts are not allowed.
- The decision of the coordinators will be final and binding.
- One person cannot be a member of more than one team.
- Bot cannot be shared by any 2 teams

**The rules are subject to change.

EVENT RULES

"A team should have both a terrestrial bot and an aquatic bot."

"The team has to go through three rounds in the event."

ROUND 1

In the first round, the bot has to complete the task in minimum time.

- The terrestrial bot will start from the point marked as "START" on the arena while the aquatic bot will have to start from littered zone.
- Selection of teams for the next round will be on the basis of time taken.
- During the run only one bot will be allowed to navigate at a time i.e. if terrestrial bot is moving the aquatic bot has to stop and vice-versa.

FURTHER ROUNDS

In the second and the third round the bot will have to perform more challenging tasks within a limited time frame.

ROBOT SPECIFICATIONS

- Maximum allowable dimension for the terrestrial bot will be 25cm x 25cm x 25cm with a tolerance of 10%.
- Maximum allowable dimension for the aquatic bot will be 25cm x 25cm x 25cm with a tolerance of 10%.

- The weight of the robot should not exceed 2.5kg.
- The robot can be powered on-board or off-board.
- The potential difference between any two electrical points on the robot must not exceed 24 volts throughout the run.

ARENA SPECIFICATIONS

- The arena will contain hurdles like gravel, sand, nails, etc. on its path.
- There will be some floating impurities in the water, water current, and few floating balls/blocks.
- The arena will be 8-15 meters in length for terrestrial bot.
- The dimensions of pool will be 3m x 1.5m x 0.5m (approx.) for aquatic bot.
- The length and constituents of the track may keep varying from round to round.
- The width of the arena will be approximately 35cm.
- If a robot damages the arena, a penalty might be imposed on the team's overall score. The magnitude of the penalty will depend on the amount of damage caused, and will be decided by the coordinators.

*** The arena description is subject to change in different rounds.