

## RC BOAT SPECIFICATIONS

- The boats must be electric powered, and assembled by the team themselves. Boats bought from the market or built from a DIY kit available for purchase will be immediately disqualified.
- The teams are allowed to use a single battery of maximum 15 volts on the boat.
- The boat must fit into a box 40cm X 30cm X 30cm (lxbxh) at any point in the track.
- The boats must be remote controlled. Any wired cars will be immediately disqualified.
- The remote control can be purchased.
- The teams are responsible to use proper encoders to avoid radio interference.
- Ready-made propellers/fans are allowed.
- Since the arena compels the boat to be equipped with several manoeuvring techniques, the teams are encouraged to decide on what route they are going to take and design the boat and its mechanism according to that.

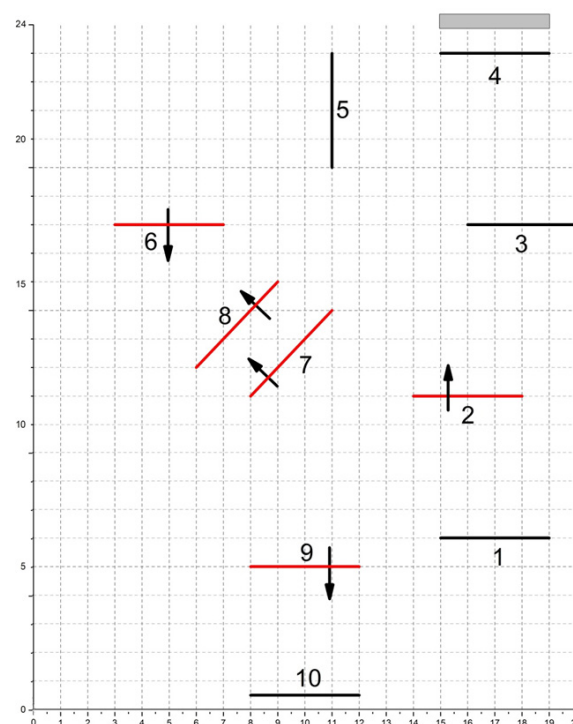
## THE ARENA

The arena has a total of 10 ordered checkpoints each with a cross-section of 45 cm. The team has to place their boat at a designated point in the arena and complete all compulsory checkpoints in the mentioned order which is represented by numbers attached to each checkpoint.

There are two types of checkpoints—directional and non-directional. Directional checkpoints have an additional direction (denoted by an arrow) attached to them. In case a boat enters a checkpoint, partially or fully, in a direction opposite to the direction of the arrow-head, a penalty will be imposed on the team in terms of points.

Checkpoint 4 is an optional one. Ahead of checkpoint 4 (see figure), a pressure sensor is present which, if triggered any time during the race, will result in bonus points towards the team. Note, all checkpoints except checkpoint 4 must be covered in an ascending order of checkpoint number so as to deem the race complete.

- Each team will be given 8 minutes to complete the track. The next team will start their turn only after the previous team has completed theirs.
- If the boat happens to stop, tumble, drown for any reason whatsoever, it will have to be lifted



Grid size 10cm X 10cm

Depth of pool is 60cm.

and placed at the last checkpoint crossed, by a team member. Any repairs must be done on the spot. The timer will be running during this.

- The team members are not allowed to touch their boat or the boats of their opponents once the timer is running (except for lifting the boat while doing a reset).
- There shall be a countdown preceding the start of the race. No participant is allowed to touch the machine during the countdown period.

## JUDGING

- All teams will be given two laps on the track. The track with greater points will be considered.
- All decisions regarding disqualifications and penalties will be in the hands of the judges.
- Maximum time for completing the race is 8 minutes.
- Total Score =  $(480 - T) + B$ .
- T = Total time of completion, B = 40 points if checkpoint 4 is completed successfully.