

# SPEEDSTER

TECH ZEALOT 2K11

RESEARCH

## roboRACE



**NO LEGO  
PARTS  
ALLOWED**

**participate in d  
ULTIMATE RACE  
here at  
27<sup>th</sup> sept.**

**“Your race is governed by your imagination”**

**Entry Fees:Rs: 250/-**

**Prize Amount: Rs 2100/- for winners and Rs 1500 for runner up.**

**Last Date of Entry is: 27 Sep 2011& On Spot Entries can be depend on techzealot committee.**

## PROBLEM STATEMENT

Design and build a robot within specified dimensions that can travel through all turns of the arena as specified below. The robot that will complete the specified task in least time will be the winner.

### ❖ ROBOT SPECIFICATIONS:

✚ The maximum allowed size of the robot is :

- Length : 30 cm
- Breadth: 30 cm
- Height: No restrictions

✚ Weight : No restrictions

✚ The bot can be wired or wireless.

✚ The wheels or legs of the robot can be of any design within the dimensions.

✚ No part of the bot should exceed the dimensions at the start of the race.

✚ **Voltage:** To power the robots, a 220V, 50 Hz AC supply will be made available during the event. No converters will be provided. The maximum allowed voltage is 24V DC.

### ❖ GENERAL RULES:

✚ The maximum number of participants allowed in a team is 4.

✚ All teams will get the participation certificates.

✚ No pre-assembled gear drives or mechanisms can be used. All these mechanisms have to be made by the participants themselves.

✚ Any action against fair play will lead to immediate disqualification.

✚ In all cases the decision of coordinators will be final.

✚ Argument with the coordinators may lead to disqualification of the team. All the teams must abide by the coordinators' instructions.

✚ No comparison with other robots is allowed.

✚ The robot which exceeds the given dimensions will be disqualified or penalized.

✚ A player cannot play in two teams.

✚ The wire should be slack at any point of the game.

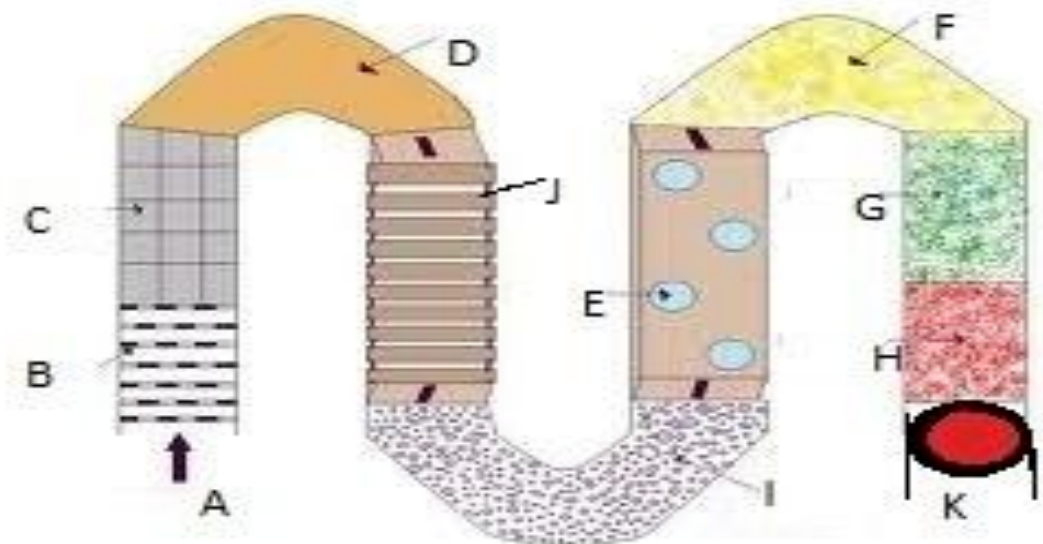
- ✚ If any problem arises, the participants will be allowed to touch their robots only once in a race. But, there won't be any timeouts or restarts.
- ✚ A team can give a maximum of 1 attempt.
- ✚ Points will be given based on the time taken to complete the race.

❖ **GAME RULES:**

- ✚ Two robots will race, fastest robot is selected into the next round.
- ✚ Number of rounds depends on the number of teams.
- ✚ The first round will be a simple race without hurdles.
- ✚ The second round will be a hurdle race.
- ✚ Participants are not allowed to touch their car once the game starts.
- ✚ The minimum width of the track at all points will be 50cm.

❖ **ARENA:**

**SAMPLE OF ARENA.**



A – START POINT.

B – SPEED BREAKER.

C – NORMAL SURFACE.

D - SAND.

J - SPEED BREAKER WITH FLAT AND GAP SURFACE.

K - CIRCULAR DISK MAY BE MOVABLE OR STILL.

E - PIT FILLED WITH WATER OR BLANK.

F – ANY TYPE OF LUBRICANT.

G – GRASS.

H – RED SOIL.

- ✚ After K Finish Line.
- ✚ 5% Change May Occurs In Arena on Event Day.
- ✚ Participant care about your wire length that should be sufficient long so that they no provide resistance within the race...

❖ **CERTIFICATE POLICY:**

- ✚ Certificate of Excellence will be awarded to all winners.
- ✚ Certificates of Participation will be given to all the teams that will participate in the event, but not to the teams which get disqualified due to disobeying any of the competition rules.

**FOR ANY QUERY CONTACT:**

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