



Spandan

Resonating minds...!!

2014

EVENT RULEBOOK

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DRAG AND DRIFT

EVENT DESCRIPTION:

This is a racing event in which the participants have to carry their Remote Controlled Car which will race on a given track.

PROBLEM STATEMENT:

Build a small wireless remote controlled IC engine driven car which can race on concrete as well as on off-road tracks.

TRACK SPECIFICATIONS:

1. At any point, the minimum width of the track will be 1.5 meters.
2. There will be checkpoints on the track. If any team's car gets stuck at any point, they can start from the previous checkpoint they have crossed.
3. The starting point is also a check point.
4. The track consists of speed-breakers.
5. There is a ramp in the circuit.

SPECIFICATIONS OF MACHINE:

1. Maximum Dimensions of machine during the entire course of the race: 600 mm x 400 mm x 400 mm (Length x Width x Height).
2. The machine should be propelled only by an IC Engine of maximum capacity 4.6 cc. Other mechanisms such as steering, fuel intake control etc. can be controlled using DC motors and servos.
3. There must be an on-board power supply for any electrically operated mechanisms. The power supply should not exceed 12 volts at any point of time.
4. Chassis has to be fabricated by the team itself. Use of any Lego parts and assembly kits for chassis is **not allowed and may lead to disqualification.**
5. Mode of control of machine should be Wireless.
6. Participants are required to use a remote control with the frequency spectrum of **2.4 GHz. This rule is to ensure that there are no frequency interferences during the competition. Also the participants are not allowed to use any remotes having the mentioned specification other than 2.4 GHz.**
7. The machine will be inspected and if found to be dangerous, the team will be disqualified. This decision rests solely with the judges and the organizers.

GAME RULES:

Game rules will be sent to the teams after their successful registration for the event via e-mail.

CHEMOMOTIVE

EVENT DESCRIPTION:

In this event the participants have to develop a chemically powered vehicle capable of performing specific tasks in safest, fastest and most efficient way possible.

The event consists of two rounds:

1. Presentation Round
2. Performance Round

Presentation Round:

In this round the participants have to present their ppt which would describe the complete functioning, design, safety, environmental and market feasibility of the vehicle.

This round will be of 100 marks.

The presentation will be judged on the following criterion:

1. Functioning- 25
2. Design and Creativity- 25
3. Safety and Environmental features- 30
4. Market feasibility- 20

Performance Round:

In this round the participants will have to perform a task with their vehicles. The details of the task will be sent to the teams after their successful registration.

This round will be of 50 marks:

Result:

Winners will be declared after adding the total scores of both the rounds.

JUNKYARD WARS

“Anyone can look for fashion in a boutique or history in a museum. The creative explorer looks for history in a hardware store and fashion in an airport.”

Can you fabricate objects as you think, not as you see?? Can you see artifacts where others see junk? “To invent, you need a good imagination and a pile of junk.” Edison has said so. We will give you all the junk we can... Make it worthy enough!

EVENT DESCRIPTION:

The participants are expected to make use of all the junk they are given with and come up with something extraordinary or simple. (The choice has always been yours). The teams battling are expected to pit out their creations against each other and the best of the creations will have to eventually be singled out.

RULES:

1. There can be a team of max 4 participants.
2. The problem statement will be provided on the spot.
3. The teams have to complete the task in limited time.
4. The winner will be decided on the basis of their creativity, working, finishing and innovation.

HIDE THE HEAT

EVENT DESCRIPTION:

In this competition the participants are required to make a model of a vessel similar to a thermos-flask by using the material provided. The modeling is based on the basic principles of Thermodynamics (Heat and Mass Transfer).

RULES:

1. There can be a team of max 4 participants.
2. All the material will be provided on the spot.
3. The teams have to complete the task in limited time.
4. The winner will be decided on the basis of their creativity, working, finishing and innovation.

WELDMENT

EVENT DESCRIPTION:

This event will deal with the welding skills of an engineer. The participant is required to weld a given sheet or plate using electric arc welding apparatus.

RULES:

1. There can be a team of 2 participants.
2. Result will be declared on the basis of strength of the weld and time taken to weld the plate.

MECHANZO

EVENT DESCRIPTION:

In this event the participants have to make a mechanism that could perform a certain task.

RULES:

1. There can be a team of 2 participants.
2. The problem statement will be provided on the spot.
3. All the required material will be provided to the teams.
4. The participants will have to complete the task in given time.

HIT THE TARGET

EVENT DESCRIPTION:

Ready..... Set..... Aim.....FIRE!!!!

In this event the participants have to make a water propelled rocket that could hit a target at a specified distance.

RULES:

1. There can be a team of 3 participants.
2. The target will be placed at a distance of 50m.
3. Each team will get 3 practice trials.
4. During the event the teams have to hit the target three times.
5. The teams will be scored on the basis of their closeness to the target.
6. The final score will be the sum of all the three scores.
7. The team scoring maximum will win.

CAD-O-MANIA

EVENT DESCRIPTION:

In this event the participant have to design an assembly in CATIA.

RULES:

1. The problem statement will be provided on the spot.
2. The participants will have to complete the task in given time.

HOVER BOAT

EVENT DESCRIPTION:

In this event the participants have to make a hovercraft that could float over land as well as water.

RULES:

1. There will be a team of max 5 participants.
2. The team have to make their hovercraft move over a given track that will contain sand, gravel, water, concrete etc.
3. The team completing 3 laps in min time will win.

CHAIN REACTION

EVENT DESCRIPTION:

Your mission if you choose to enter will be to create a contraption. The teams will face a test of functionality, complexity and creativity to achieve the set tasks. All teams brace yourselves to create an amalgam of science and art to exalt the simple, to put up a spectacle, to create magnificence.

RULES:

1. There will be a team of max 5 participants.
2. The contraption must complete the challenge assigned by the rules committee.
3. The contraption must complete the challenge in 20 steps or more.
4. A workspace of 10ft x 10ft will be provided to each team. The contraption should fit inside this area. There is no vertical barrier.
5. The contraption must be safe to the satisfaction of the coordinators.
6. Teams are requested to start their contraptions on time, otherwise they will be penalized.
7. Human intervention will not be allowed once the contraption is in motion unless the contraption is stalled and requires assistance. Penalty points will be assessed for each step of the contraption that requires a team member to intervene to complete the step.
8. Combustible fluids, explosives, open flames, or hazardous materials are not permitted. The contraption must not imply profane, indecent, or lewd expressions.