la porsChe

The year is 2296 A.D. Earth. After the 4th world war, the world has completely changed. The petroleum based fuels had already been drained in the 3rd world war. The dust holocaust has cut off the sun. All eyes have turned to alternative fuels. Chemicals have been identified as the potential energy source and our aim is to develop a car which can survive the scare. Introducing **' la porsChe'!!!**

GAME RULES

1. Each car will be given two opportunities to traverse a specified distance carrying a certain fixed additional load. The required distance will be given to all teams one hour prior to the start of the car performance rounds. The distance will be between 10 and 20 ft ± 0.5 in. and the load will be 200 ml of water.

2. Teams may not add or remove any "load" (or other inert items) to adjust their car's weight once the poster session has concluded. Teams are allowed to adjust "fuel" or reactants used in the car's chemical reaction.

3. The car will start with its front most point just above the designated starting line. There will be a designated finish line. The distance will be measured with respect to the front most point of the car. The goal of the competition is to have your car stop closest to the specified finish line (in bounds) while carrying the specified load. The course will be rectangular, with a starting line and the prescribed distance clearly marked. Physical site will dictate the exact course layout.

4. All distances will be measured from the finish line. A vehicle that goes outside the course will have its distance measured to where it went out of bounds and will receive a penalty of 5ft. added to the measured distance. While measuring the distance from the finish line it does not matter if the car goes longer or shorter than the prescribed distance.

5. An objective of this contest is the demonstration of the ability to control a chemical reaction. The only energy source for the propulsion of the car is a chemical reaction. Commercial batteries (for example, AA batteries), Commercial engines (combustion engines) etc. are not allowed as power sources.

6. The car must be an autonomous vehicle and cannot be controlled remotely. Pushing to start the vehicle or a mechanical starting device is not allowed. There can be no mechanical or electronic timing device(s)/brake(s) to stop the chemical reaction.

7. The car must carry a container that holds up to 200 ml of water without spilling. At the competition, only the water will be supplied, thus each car must already have its own container.

8. All components of the car must fit into a shoebox of dimensions no larger than 40 cm x 40 cm x 20 cm, with all mechanisms being onboard. The car may be disassembled to meet this requirement. If the judges are uncertain whether the car will fit inside the box when disassembled, they may request the team to demonstrate that they can do this.

9. Students are responsible for transportation of the chemicals to the competition sites. Students are also responsible for arranging for the disposal of their chemicals and wastes. Facility of running water as well as disposal of waste chemical will be provided at the chemical site.

10. The poster judging will occur prior to the car performance rounds. Team members should be present during judging to answer questions (if any) from the judges.

11. A poster board must be displayed with the setup on the day of the competition. This poster should describe how the car is powered using the chemical reaction, the unique features of the car and environmental and safety features in the design.

12. Posters would be used in judging the car for its innovation in design of drive system as well as aesthetics. All teams must bring poster at the time of the event. Posters will be judged according to the following criteria (equal weightage):
    - Description of the chemical reaction / power source.
    - Unique features of the car.
    - Aesthetics.
    - Environmental and safety features

GENERAL RULES:

1. The competition will be conducted on the honor system. Faculty can only act as sounding boards to the student queries. The faculty cannot be idea generators for the project.

2. Every team has to register online at our website for the competition. A registration number will be allocated to the team on registration which shall be used for future reference.

3. The maximum team size is 4 participants.

4. Judges decision shall be treated as final and binding on all.

WINNING CRITERIA:

1. The car which stops closest to the finish line at the end of the two rounds carrying the above said weight will be deemed as the winner. Ties will be decided by the best average from the two runs completed.

2. Apart from this, three more categories have been created. They are the award for **most consistent performance**, the award for **most creative drive system** and the award for **most creative car design.**

SAFETY NORMS:

1. Safety and safe transportation procedures are important items to address. Hazardous chemical protocols must be followed and reported on the poster. Each team must have a MSDS for each chemical it is using. If obvious safety violations have occurred, the judges have the discretion to disqualify the entry. You can download MSDS from these sites:
    - http://avogadro.chem.iastate.edu/MSDS
    - http://physchem.ox.ac.uk/MSDS/#MSDS
    - http://www.chemexper.com

2. If a car is deemed unsafe, then the judges may disqualify it. Given the general public's lack of understanding of general chemistry, anything that is visibly left behind, may well be construed as chemical pollution, and even hazardous. Any entry using or producing a corrosive chemical(s) must have the chemical(s) sealed in a container, or at least use a spill-proof container.

3. Appropriate personal protection must be worn by the team members operating the vehicle. All cars must safely operate inside a building.

4. Chemicals **must not** be stored in hostel rooms. Check here for the latest information on where chemicals may be stored at the competition site: www.techfest.org/chemsplash.

5. In order to facilitate chemical safety at the competition site, a designated area will be identified where teams must mix or prepare their chemicals (unless the materials are pre-mixed). Unfortunately, due to hostel safety regulations it is not possible to allow teams to do "trial runs" in the hostels. Teams that violate these safety rules jeopardize the continued operation of la porsChe and will be disqualified.

In case of queries, contact:

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