

2011 Model Fuel Cell Car Competition Regional Structure

Design Competition Structure

- a) Judges will grade one car from each school. Each judge can give up to 35 points per car as follows: **Technology**-chassis, gearing, etc., **Craftsmanship**, and **Innovation**. Each category is worth 10 points. 3 of the 10 points will assess the student team's knowledge and participation in each of the respective categories.
- b) 0-5 points is assigned for the quality of the teams' design document.

Race Competition Structure

I. Three Time-Trial Heats (Round Robin)

Each car gets three chances (heats) to produce a lowest race time.. Races will be run every 5 minutes with 7 races per heat. Lane assignments will be randomized between heats as indicated by car number. Single best time is the sole factor in determining 6th Place and below. The five cars with the best/lowest times will continue competing for 1st – 5th Place in the Final Championship Race.

Announcement of Finalists - Six-Minute Break - Final Inspection

II. Final Championship Race

This is a short simple competition between the top five cars. The finishing order will rank cars for 1st – 5th Place.

General Rules:

- a) The car must be safe, no sharp edges or projectiles, and not exceed the following dimensions: 20 cm wide, 40 cm long, 20 cm high. A 3 cm by 3 cm space left for an assigned number.
- b) After inspection cars must continue to adhere to inspection criteria and not be modified illegally in any way. Cars entering the final heat will be inspected one more time.
- c) All team members within 5 ft of the car must wear safety glasses when charging, operating, and adjusting their car. Minimally this includes wearing safety glasses at work & charging tables; start and finish lines.
- d) Teams must understand & keep track of their race and lane assignments. If the team is late or the car is not functioning, the team will forfeit that race and receive a Did Not Finish or DNF.
- e) A team member must be positioned at each end of the lane or track. Do not move into the race areas until the race is officially over, and then ONLY to retrieve your car.
- f) Cars are allowed to charge on the line until ~12 seconds before a race commences. The race official or "Line Boss" reserves the right to adjust this and other instructions as necessary.
- g) At the count down all wheels of the car must stay on the track; at "GO" cars will be energized by a switch or similar connector; cars may not be pushed – for that race it will be the official's discretion to disqualify a team for "pushing".
- h) Any car that does not finish a time-trial race within 40 seconds will be listed as a DNF and receive no time designation.
- i) Only team members who are racing or are about to race will be allowed within the designated race area.

Tentative Agenda

8:50 am	Team and Vehicle Registration
9:00 am	Vehicle Inspection
9:05 am	Design Judging
10:30 am	Preliminary Remarks & Model Car Race
12:00 n	Lunch
12:30 pm	Award Presentation