Formula Schools Electric Rules and Regulations

The following Rules and Regulations are for the Formula Schools Electric Engineering Competition. The competition is open to all pupils up to the end of year 11, with a strict upper age limit. No sixth form students to participate directly but skills and knowledge gained by using older pupils as mentors is to be encouraged. The Rules and Regulations are designed to enable the teams to compete on a reasonably level playing field, whilst encouraging technical innovation, without being too restrictive.

The organisers will be happy to give their interpretation of any aspect of the Rules should the need arise, during the build phase as well as on Race Day, reflecting the spirit of the competition.

Formula:

No kit cars are allowed. This would be in direct conflict with the spirit and aims of the competition. In brief, cars are to be approximately 1/12th scale, scratch built. Stock components may be used, but not complete assemblies. Cars will be scrutinised prior to and on Race Day to ensure they have been scratch built and the following guidelines have been followed:

Motor	Supplied electric Motor - Cars may only be powered by one motor, but this may be modified or changed.
Power	Only the 4 Cell supplied Battery packs may be used.
Chassis	Scratch built - There are no limits to construction, provided the whole car falls within the dimensions given in these regulations
Body	No restrictions - There are no restrictions on the body shape or construction, but the body shape must be identifiably a car
Suspension	Formula Schools kit or scratch built - Any geometry can be used
Drive Train	No restrictions
Gearing	- The car can be front, rear or four wheel drive
Tyres & wheels	No limits on tyre and wheel width, material and design
Radio	Radio gear will be allocated by the organisers. This is the only radio gear that can be used on race day. Prior to race day the choice is left to participants.
Dimensions	Inclusive of all body projections and aerodynamic features, except the radio aerial. Approximately 1/12 scale construction. It is an open class and just about anything goes.

All in mm	Maximum	Minimum
Length	400	250
Width	250	150

Weight There are no weight restrictions

Car Identification Numbers will be allocated by the organisers and must be easily identifiable throughout the race. If a car loses its bodywork during a race it will not accrue any further laps

Scrutineers will also look for safety features (e.g. no sharp projections that could injure competitors) and to ensure that car construction is designed for racing rather than damaging other competitors' cars.

Race Day
Race Day has previously been held at Silverstone

The overall winner will be the team gaining most points from a combination of race results (30 points max) and scrutineering (80 points max). There are a total of 110 points on offer. In the event of a tie the team with the most race points will win.

Grand Prix
All races are time trials; the race winner will be the team completing the most laps.

- The Grand Prix will comprise of three five minute race sessions with two 5 minute pit stops.
- Teams may restart and work on their car during the race so long as they do not hinder the other competitors and they are not seen to gain an advantage when the car is placed back on the track. If a car has to be withdrawn from the track, it must restart from the pit area.

All cars brought to Race Day must have been built as part of the engineering challenge. Only one car may be used per race (i.e. a damaged car cannot be swapped in mid-race) but different cars can be entered for different races.

Accurate Driving Trial
These rounds will have a trophy and prize for the first placed team, with no points contributing to the overall totals.

Point Scoring

Racing
The team completing the most laps will win each race. Points will be awarded as follows:

Position	1st	2nd	3rd	4th	5th	6th	7th	8th
Points	10	8	6	5	4	3	2	1

Any team or driver who seriously obstruct or damage other competitors' cars will be disqualified from the race concerned.

Scrutineering

The following categories will be awarded points

- Engineering 30
- Body and Aerodynamics 20
- Teamwork 20
- Total 70

Engineering, Body and Aerodynamic Design

The scrutineers will be looking for quality of design and implementation by checking the pupils' understanding of the engineering of their cars. Wholesale use of kits will be marked down.

Teamwork

Scrutineers will be looking for a cohesive team with clear roles, inter-changeability where appropriate. They should be able to solve problems as a team and react to changing circumstances

For full details of points allocation go to the 'points criteria' section of Rules and Regulations.

Trophies will be awarded for the following categories:

<table>
<tr><td colspan="2">Formula Schools Electric</td></tr>
<tr><td colspan="2">Overall Champions</td></tr>
<tr><td>Engineering</td><td>Grand Prix points</td></tr>
<tr><td>Body and Aerodynamics
Teamwork</td><td>Accurate driving trial winner</td></tr>
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