

## **Class 1 (200 Series) Requirements**

The organisers will provide space for a 4m x 3m display area for each Class 1 (200 Series) team. Teams are required to supply their own displays and supporting structure, showing their vehicle and giving details of their design and development work. Points will be awarded in accordance with the SAE Rules for "first year vehicles", with the following exceptions:

### **4.1. Design and Development (150 points)**

The "design" event for Class 1 (200 Series) will be heavily focused on how the car has been developed since last year, and with what objectives in mind (e.g. cost reduction, weight saving, better handling, etc.). During the Design and Development presentation, teams will be judged first and foremost on how well they understand their design changes and what they have done to improve the car. Class 1 (200 series) teams must ensure that their pre-submitted Design Reports make clear what their major development objectives were, and how they have set about meeting them, i.e. HOW and WHY the car differs from that presented 12 months earlier. The Report should present a balanced discussion about the design weaknesses of the old car (including the methods by which these weaknesses were identified) and the design modifications (again including an analysis to demonstrate the benefits of the modifications). To score well, both for the report and at the event, teams must demonstrate a sound knowledge and understanding of the engineering principles involved in planning and applying their developments. Re-submitting the original Design Report (from when the car was entered in Class 1) will incur penalties as if no Design Report had been submitted.

As a further incentive, up to 50 points will be awarded as a bonus to the pre-moderation design score of any 200 Series team that successfully converts what was a gasoline vehicle (when entered in Class 1) into one running on E85 (bio-ethanol and gasoline blend). This bonus will only be awarded if the car completes at least one dynamic event using the E85 fuel, and the number of bonus points awarded will depend on the quality of the conversion and how well the team has researched, understood and addressed the issues.

Points will be awarded according to the Class 1(200) Design scoring sheet (available via the Important Dates & Documents page). Teams must also submit a Design Spec Sheet (also available via the Important Dates & Documents page).

There are strict formatting and other requirements for the Design Report and Spec Sheets. These, along with the penalties for non-compliance, are defined in the "General Requirements" section of these Supplementary Regs.

For Class 1 (200 Series), a 25 point "bond" will be held by all teams in the design event. This bond will be withheld, i.e. the points will automatically be deducted from the final design event score, if the car fails to pass technical and safety scrutineering and start at least one dynamic event. This rule is to encourage teams to recognise the importance of development and validation work in the design process.

## **4.2. Presentation (75 points)**

This will follow the same format as that described for the presentation event in the FSAE Rules, and involve a 10 minutes formal business presentation to senior executives from an imaginary manufacturing company, followed by 5 minutes of questions, with a view to obtaining support for switching large scale manufacturing from the team's previous car to their developed version.

In addition, teams are required to submit a Team/Car profile prior to the event (deadline defined on the Important Dates & Documents page). The Team/Car Profile forms the basis of the material the organisers print about each team in the Formula Student commemorative magazine, is used by the event commentators, and may be used by the organizers for pre-event PR, press releases etc. It will also be shown to the Presentation judges prior to the event, and is your opportunity to tell everyone about your team, university and car. As well as talking about the design choices you have made, and the key development features of your car, you might also like to talk about how your team is organised, describe the logistics involved in getting your car to the competition, your main objectives, etc. etc. Teams must submit their Team/Car Profiles in the format of the official Team/Car Profile Sheet (also available via the Important Dates & Documents page). **Failure to submit a team/car profile meeting**

**these requirements may result in a penalty of up to 25 points being deducted (post-moderation) from a team's presentation event score, at the judges' discretion.**

Points will be awarded according to the Presentation scoring sheet (available via the Important Dates & Documents page).

### **4.3. Cost**

There will be no formal cost event for the Class 1 (200 series) cars, and teams are therefore not required to submit a Cost Report prior to the event. Teams can expect, however, to be questioned on the cost implications of their developments during the design and presentation events.