

F1 in School

Our mission

Changing lives around the world

"To help change the perceptions of science, technology, engineering and maths by creating a fun and exciting learning environment for young"

Vision

Offering a way to learn Science, Technology, Engineering and Maths (STEM) related subjects in such an exciting way is achieving great results and we know we are increasing the intake of students into Engineering careers. We are privileged to have the support of the Formula One™ community – in particular Mr Ecclestone at FOM and, of course, the Formula One™ teams who make our students welcome in the F1™ paddock and in their factories.

There are many success stories who have actually come through our initiative and have gone on to achieve significant outcomes in their lives including positions in Formula One teams.

As F1 in Schools moves into the future we will continue to expand into more and more countries. This is largest and most successful school based STEM program in the world and we will continue to grow on our success.

INTRODUCTION

- F1 in Schools the only global multi-disciplinary challenge in which teams of students aged 9 to 19 deploy CAD/CAM software to collaborate, design, analyze, manufacture, test, and then race miniature compressed air powered balsa wood F1 cars.
- Teams must raise sponsorship and manage budgets to fund research, travel and accommodation.
- The challenge inspires students to use IT to learn about physics, aerodynamics, design, manufacture, branding, graphics, sponsorship, marketing, leadership/teamwork, media skills and financial strategy, and apply them in a practical, imaginative, competitive and exciting way.
- The founding constitution of F1 in Schools stipulates that it is, and shall remain, a not-for-profit organization. Funds raised through sponsorship are invested in administering, developing and expanding the challenge. All income is deployed in accordance with guidelines laid down by Formula One Management.
- The challenge is a unique global platform for the promotion of Formula One and partners to a youth market.

The Competition-What's It All About?

You are a Formula One™ team commissioned to design, construct and race the fastest Formula One Car of the Future, powered by compressed air cylinders.

1. Form a team

Form a team of 3 – 6, think of a name, decide job roles; Team Manager, Manufacturing Engineer, Design Engineer, Graphic Designer and Resource Manager. Register via your country's [website](#).

2. Business and Sponsorship Plan

Prepare a business plan, develop a budget and raise sponsorship. Teams are encouraged to collaborate with industry and create business links.

3. Design

Using 3D CAD (Computer Aided Design) software, design an F1 car of the future to the specifications set by the International Rules Committee just like in Formula One™.

4. Analyse

Aerodynamics are analysed for drag coefficient in a virtual wind tunnel using Computational Fluid Dynamics Software (CFD).

5.Make

Using 3D CAM (Computer Aided Manufacture) software, the team evaluates the most efficient machining strategy to make the car.

6.Test

Aerodynamics are tested in wind and smoke tunnels.

7.Pit Booth

Put together an informative display showing your work through all stages of the project. Think about your team identity.

8.Scrutineering

Cars are submitted to parc ferme where the judges scrutinize every dimension to check they comply with the Rules and Regulations.

9.Engineering Judging

Judges question teams on how their cars has been manufactured and why particular designs were chosen.

10.Verbal Presentation

Prepare a presentation to perform to a panel of judges covering all aspects of the challenge. This will be completed within a set time limit.

11.Portfolio Judging

Put together a 20 page A3 portfolio documenting your project.

12.Race

Time to test what your team has worked so hard together to achieve; a winning car.