

F1 in Schools Package

A COMPLETE PACKAGE INCORPORATING DESIGN, ANALYSE, MAKE, TEST & RACE

The F1 in Schools Technology Challenge stimulates a student's interest in, and understanding of the entire process of design and manufacture. Through involvement in the F1 in Schools Challenge, students will gain first hand experience of teamwork and communication, whilst encouraging individual flair and confidence. The F1 in Schools Challenge provides students with the opportunity to reflect industrial working practice of developing a product from concept, to prototype to production.

Plan



Analyse

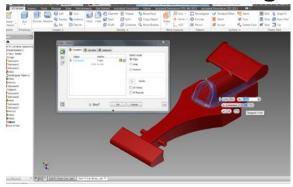


Test



f1inschools.com

Design



Make



Race







F1 in Schools Package

In support of the F1 in Schools Technology Challenge, Denford offer an F1® Package, which includes all of the equipment required to get you up and running for this innovative educational project - covering Design, Analyse, Make, Test & Race.

A brief overview:

- **1. Plan:** Prepare a **business plan,** develop a budget and raise sponsorship. Teams are encouraged to collaborate with industry and create business links.
- **2. 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 1®.

- **3. Analyse:** Aerodynamics are **analysed** for drag coefficiency in a virtual wind tunnel using Computational Fluid Dynamics Software [CFD].
- **4. Make:** Using 3D CAM (Computer Aided Manufacture) software, the team evaluates the most efficient machining strategy to **make** the car.
- **5. Test:** Aerodynamics are **tested** in wind and smoke tunnels.
- **6. Race:** Time to test what your team has worked so hard together to achieve: a winning car.

The F1 in Schools Package:

DESIGN

Autodesk® 3D Design, Drafting & Simulation Software QuickCAM Pro Advanced Milling/Routing CAM software (site licence).

ANALYSE:

Virtual Wind Tunnel (VWT) Software (single licence).

MAKE

CNC Machine Options

- Router 2600/Router 2600 Pro (Metal Cutting).
- Compact 1000 Pro (Metal Cutting).
- MRC 40

Car Manufacture Fixture

F1 in Schools Car Manufacturing Fixture for both Bloodhound SSC & Formula 1® Class cars.

Consumables - Bloodhound SSC & Formula 1® Class Cars

Formula 1® Class Balsa Wood Blanks - Pack of 20.
 Fusion Wheels - Black - Pack of 100.

Screw Eyes 1" - Pack of 100.
Long Axles - 65mm - Pack of 100.
Straw Wheel Spacers - Pack of 500.
Washers - 4mm - Pack of 100.
Decal Stickers - Pack of 25 sheets.
Paint Stand.

Bloodhound SSC Class Balsa Wood Blanks - Pack of 20.
 PX Wheels - Rear - Black - Pack of 100.
 LX Wheels - Front - Black - Pack of 100.

Screw Eyes 1/4" - Pack of 100. Short Axles - 43mm - Pack of 100.

TEST

Scout Wind Tunnel.

Fog Maestro Smoke Generator including 1Ltr. Fog Fluid.

RACE:

Elevated Race Track - 25m track.

F1 Race System (x1 Start & Finish Gate, x2 Launch Triggers, x2 Launchers,

x1 Power Supply, x1 Control Box).

8 Gram Competition Cartridges (pack of 120).



Compact 1000 PRO



Router 2600 PRO

For the full range of F1 consumables & race equipment see pages 72 - 77.