

# F1 in Schools Packages

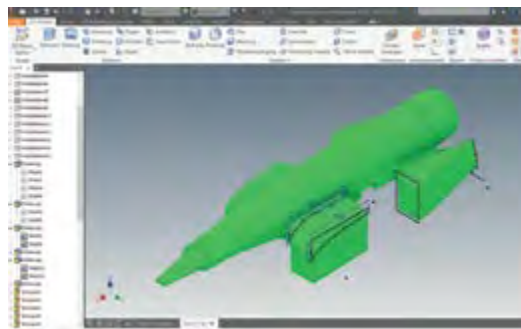
COMPLETE PACKAGES INCORPORATING DESIGN, ANALYSE, MAKE, TEST & RACE

The F1 in Schools STEM 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 STEM Challenge provides students with the opportunity to reflect industrial working practice of developing a product from concept, to prototype to production.

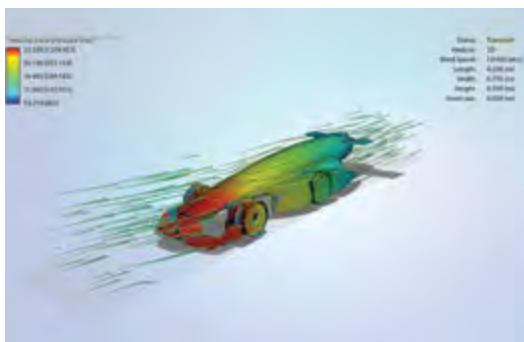
**Plan**



**Design**



**Analyse**



**Make**



**Test**



**Race**



[flinschools.com](http://flinschools.com)



APPROVED

Ideal for use in conjunction with



**in Schools**

## F1 in Schools Packages

In support of the F1 in Schools STEM Challenge, Denford offers F1 in Schools Packages, which include 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 coefficient in a Virtual Reality 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**.

### 1 - F1 Car Manufacturing 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/Compact 1000 Pro (Metal Cutting).

##### Car Manufacture Fixture

F1 in Schools Car Manufacturing Fixture

##### Consumables

F1 Model Block - Pack of 20.  
F1 Class Wheels - Pack of 100.  
Screw Eyes - Pack of 100.  
F1 Axles - Pack of 100.  
Axle Bushes - Pack of 100.  
Decal Stickers - Pack of 25 sheets.  
Paint Stand.  
2 x 1/4" Dia. Ball Nose Extra Long Series Cutter.  
IsoSketch 3D Drawing Tool - Class pack of 30.

### 2 - F1 Car Manufacturing, Test & Race Package:

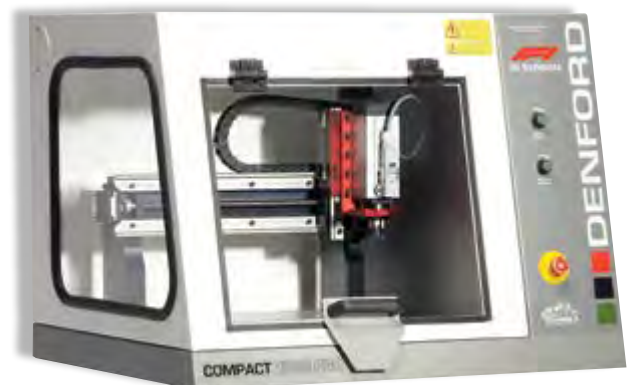
This package includes all of the above equipment plus the following:

#### TEST:

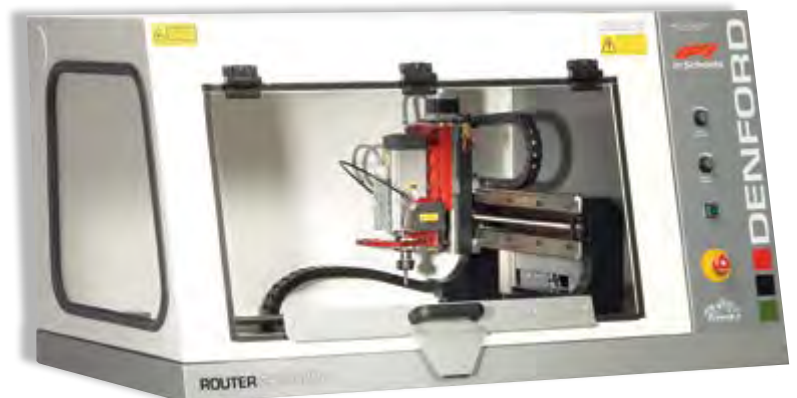
Air Trace Visualisation System

#### RACE:

F1 Race Track  
F1 Race Control System  
Denford CO2 Power Packs 8 gms - Pack of 360  
Car Deceleration System



Compact 1000 Pro



Router 2600 Pro

For the full range of F1 race equipment & consumables see pages 60 - 65