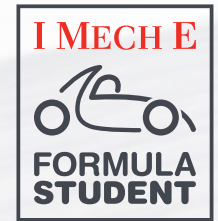


FORMULA STUDENT

Institution of Mechanical Engineers



Congratulations to Institut Supérieur de l'Automobile et des Transports (ISAT)

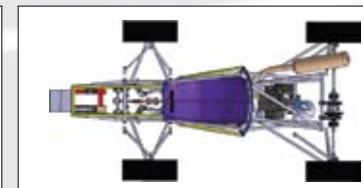
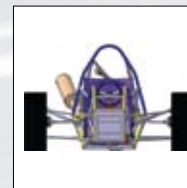
FOR PARTICIPATING IN FORMULA STUDENT 2008

ISAT University, the only university specialised in automotive and transport in France, is located a few kilometers from the Nevers Magny-Cours Circuit.

The 2008 team is composed of 15 students in mechanical engineering, split up into six main disciplines: Structure, Vehicle dynamics, Engine, Drivetrain, Electronics and Marketing. The Formula Student Challenge at ISAT University is taken up by the 3rd year students and has to be completed in one year. This is the fifth year that ISAT has taken part in the challenge.

Thanks to former teams' feedback, we were able to establish our design and thoughts based on the errors made and results we have had in past years. Thus, we hope, we managed to produce a single-seat car that performs well in the different events during the competition.

Our basic strategy is one of steady evolution, learning from our past mistakes and not revolution. Having decided five years ago that a single cylinder 450cc Yamaha engine would give a better power to weight ratio we have retained this choice for Silverstone 2008. Our structure is lighter and more rigid in torsion than the previous cars. With the kind help of National Instruments this year we have begun to develop an onboard data acquisition system with driver information feedback.



Length/width/height/wheelbase
2855mm/1410mm/1135mm/1650mm

Track (front/rear)
1250mm/1230mm

Weight including 68kg driver (front/rear)
140kg/160kg

Suspension (front/rear)
Unequal length A-Arms. Direct acting combined Bos-engineering spring/damper units

Tyres (front/rear)
AVON 6.2/20.0 – 13 A45 compound

Wheels (front/rear)
O.Z Racing aluminium
13"x6" – offset 12mm

Brakes (front/rear)
2 brake discs and rotors Beringer,
193mm for break disc

Frame type
Alloy steel tube space frame with glass fibre body, BSEN 10210
Pt1 S355J2H alloy steel

Engine
2005 Yamaha WR450 single

Bore/stroke/cylinders/cc
95.0 x 63.4 mm/1 cylinder/449 cc

Fuel
100 octane petrol (Shell Optimax)

Fuel system
Student designed/built fuel injection system using SODEMO ECU

Max power/max torque
9,000rpm/6,500rpm

Transmission/differential/final drive
Chain (520 thread)/Limited slip differential Torsen T2 pignons, 2 half aluminium 7075 casings/
Adjustable between 2.5 – 2.69 by sprocket changes. Using 2.5