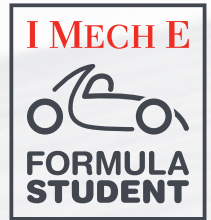


FORMULA STUDENT

Institution of Mechanical Engineers



Congratulations to Polytechnic Institute of Leiria

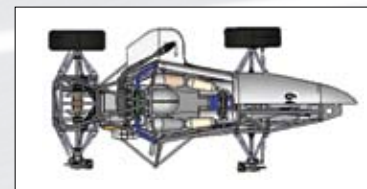
FOR PARTICIPATING IN FORMULA STUDENT 2008

Polytechnic Institute of Leiria Formula Engineering Team is proud to present their first Formula Student running car, the FIPL 01. The ambitious members' of this small Team have worked very hard to reach the set design objectives ensuring a good information flow and rapid response to problems. The Team is divided into eight departments: six technical (chassis, engine and electronics, suspension steering and brakes, drivetrain, bodywork and manufacture) and two non-technical ones (marketing and management).

The design philosophy behind FIPL 01 was to produce a car based on reliability, ease-of-manufacture and performance criteria; thus making the car an overall performer, within the spirit of the rules. The car offers perfect ergonomics, high performance through an optimized powertrain, suspension and lightweight materials as well as maximum safety.

The chassis for 2008 has been developed using last year chassis as its basis. The team goals for this space frame are: weight reduction and torsional stiffness improvement, lower centre of gravity (CG), more space in the cockpit area and to ensure easy manufacturing process.

After two years of development, this Team is looking forward to participating with their first class 1 car in Formula Student at Silverstone.



Length/width/height/wheelbase
2895mm/1372mm/1179mm/1600mm

Track (front/rear)
1198mm/1147mm

Weight including 68kg driver (front/rear)
134kg/166kg

Suspension (front/rear)
Unequal length A-Arms. Pullrod actuated/
Push rod actuated Fox Vanilla DHX 5.0
8.5x2.5 spring/damper units

Tyres (front/rear)
20x7.2-13 A45 Avon

Wheels (front/rear)
BBS 6.0 x 13 ET 10.8 4-Bolt 3-pieces

Brakes (front/rear)
Inboard CB 250 stock brake disc
240mm diameter

Frame type
Steel tube space frame with glued carbon
fibre floor panels, AISI 4130 alloy steel
square and round tube

Engine
2002 Honda CBR 600 F4i

Bore/stroke/cylinders/cc
67,00 x 42,50mm/4 cylinder/599cc

Fuel
100 octane gasoline

Fuel system
Custom 38mm butterfly throttle body

Max power/max torque
10,000rpm/6,000rpm

Transmission/differential/final drive
Chain #520 alpha series - Tsubaki/Taylor
Quaife Chain Drive Differential Assembly
with Bearing/Adjustable between 3.286 -
3.833 by sprocket changes. Using 3.833