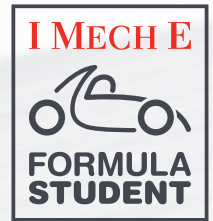


FORMULA STUDENT

Institution of Mechanical Engineers



Congratulations to Loughborough University

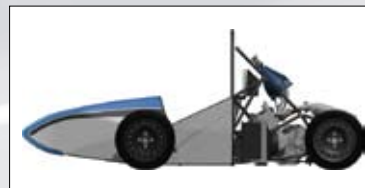
FOR PARTICIPATING IN FORMULA STUDENT 2008

2008 sees the creation of LUMotorsport's 6th Formula Student car: LFS08. The objectives for LFS08 were to build on the success of LFS07 while addressing weaker areas, thus constructing a new car that would have all of the attributes of LFS07 without the problems.

To gain an increased understanding of the car and to help future development, this year has seen a plethora of testing and computer simulation validation. This included car torsional testing, engine dynamometer and fuel efficiency testing, fuel spray analysis, damper dynamometer testing and of course implementing a rigorous track testing regime.

The LUMotorsport team is made up of more than 15 extremely committed students working outside of their academic studies. Many academic modules have been implemented in which designs are constructed and analysis performed. This combined effort of team and academic modules allows the team to back-up designs with numerical analysis and test data whilst building a car that is out and testing by March.

The team looks forward to upholding their top-ten position in the UK event. The team also aims to prove its new carbon components and learn from their manufacture in order to possibly move into the realms of more composite technology in future years.



Length/width/height/wheelbase
2800mm/1520mm/1165mm/1575mm

Track (front/rear)
1300mm/1130mm

Weight including 68kg driver (front/rear)
136kg/162kg (full wet car weight 230kg)

Suspension (front/rear)
Carbon fibre unequal length A-Arms.
Pullrod actuated 3-way adjustable Reiger damper units and Hyperco springs

Tyres (front/rear)
20.5x7 .0 -13/20 .0x7.5-13 Hoosier R25A

Wheels (front/rear)
Custom manufactured 2-piece carbon fibre, 8.0x12, -45 offset

Brakes (front/rear)
Floating bell mounted, 0.5mm float, 229/204mm dia. laser cut

Frame type
T45 tubular steel front and rear spaceframes with bonded glassfibre stiffener panels

Engine
2005 Honda CBR600RR 4 cylinder inline

Bore/stroke/cylinders/cc
67mm x 42.5mm/4 cylinders/599 cc

Fuel
98 octane petrol

Fuel system
Goodridge smooth bore hose - 4 fittings used, bespoke 4 point sequential injection, CBR600RR ECU + Dynojet power commander. Dead end fuel line-submerged fuel pump, filter and pressure regulator assembly

Max power/max torque
9,000-10,000rpm/4,000rpm

Transmission/differential/final drive
Chain/Quaife TORSEN Differential, QDF7ZR/Adjustable from 3.13:1 - 4.307:1