

WARWICK FORMULA STUDENT NEWSLETTER

December 2009 Issue 1

Warwick Formula Student and the W10 Team



From Left to Right, Front Row: Richard Hull: Team Advisor, Alan Pope: Chief Engineer, Ashley Pearce: Project Manager
Middle Row: Mike Wilkins: Powertrain Team Leader, Andrew Gibson: Powertrain, Matt Dickens: Electronics Team Leader, Mark Cousins: Chassis Team Leader, Ryan Greenslade: Chassis, Rhiannon Stone: Finance and Sponsorship
Back Row: Kelliann Hukins: Chassis, Hannah Pearlman: Chassis, Matt Wakelin: Chassis, Dave Cooper: Powertrain

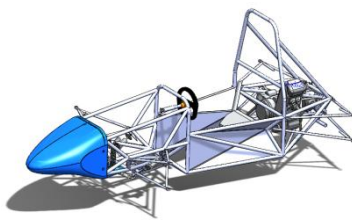
Warwick Formula Student 2010 is a team of 12 final year engineering students working with a business support team to design, build and test a single seater race car to enter the 2010 IMechE Formula Student Competition.

At Warwick University the car design and build is run as a final year masters project where we must produce a technical report and presentation.

The competition itself is from the 15th to the 18th of July 2010 during which we compete in dynamic events, which test the car's speed, agility and reliability, as well as giving presentations on the design, costing and marketing aspects.

The Team

Our team this year has a wealth of knowledge and experience through industrial links. Our Chief Engineer, Alan Pope spent a year at Rolls Royce in their operations department and Ryan Greenslade, who is part of the chassis design team worked with Red Bull Racing in their very successful 2009 season. Hannah Pearlman has spent time as a Junior Engineering Designer at Angle Consulting and was the recipient of the Royal Academy of Engineering's Leadership Award. Dave Cooper is this year continuing his relationship with EOS, whom he worked with for his 3rd year project, to this year produce a rapid manufactured intake and exhaust.



Warwick Car at Silverstone 2009. Courtesy of Gavin Ireland and Andrew Huddart

July 2009 at Silverstone

Thanks to all of our sponsors who made it possible for Warwick Formula Student to take a car to the 2009 competition. The striking white Warwick car is pictured above.

Overall it was a successful weekend with the team achieving good lap times and scoring highly in events such as the cost presentation.

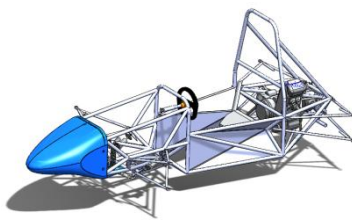
Many of the 2010 team visited the event and this certainly puts us on the right track to success in the 2010 competition.

New Sponsorship and Marketing Strategy

We are working this year in conjunction with Warwick Business School students to re-launch our brand and provide a dedicated sponsorship team.

The team are working hard to create new YouTube channel in conjunction with Warwick TV as well as re-designing the logo and website for launch in the New Year. We will of course update you with progress and have a re-launch event in the planning for January to introduce our new brand.

Contact the Sponsorship Team via email: Rhannon.Stone@warwick.ac.uk



Aims and Objectives

Our design philosophy for this year is to design a car which is reliable, simple and light weight. Our aim is to finish all the events at this year's competition; the acceleration, skid pan, sprint and the endurance. To do this we have a self-imposed deadline of the 4th of December to complete our CAD design and start the procurement process.

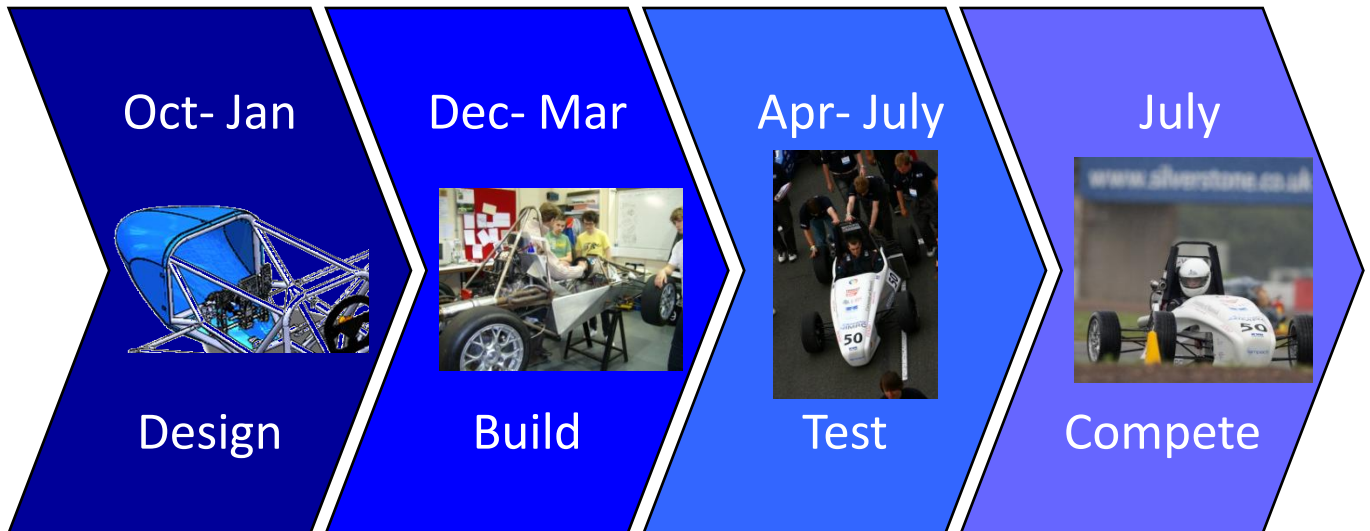
We have Rotadata onboard to EDM wire cut our chassis tubes in December and the welding will take place in late December and early January. This is a great opportunity for us and a clear deadline for us to work to.

We have a weight target of 200kg this year and we aim to achieve this by optimising the design and using light weight materials where possible.

So far we have achieved a mathematically calculated design represented in CAD and over the next few weeks we will be working to finalise all of the design aspects whilst considering manufacturability and cost effectiveness

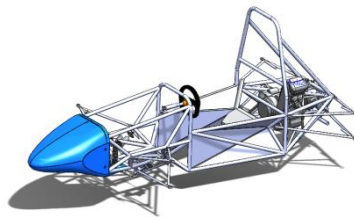
Thanks to our kind sponsors, product and monetary, we will be able to build a car for the competition this year which is reliable and tested. In the mean time we are designing to avoid complexity, uncertainty and bulkiness.

-Ashley Pearce, Project Manager



Test and compete images courtesy of Gavin Ireland and Andrew Huddart

For more information on the competition or Warwick Formula Student, just visit our website at www.formulastudent.warwick.ac.uk

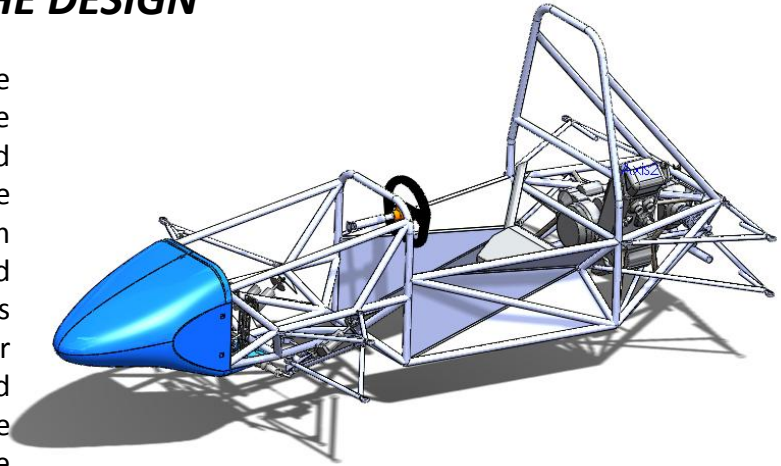


THE DESIGN

CHASSIS

At this time of the year the design of the chassis progresses very quickly. The whole team is working hard towards a finalised design ready for manufacture over the Christmas break. The chassis is now in a frozen state and is in the process of being analysed for torsional stiffness and individual tube sizes are being optimised. One of the main aims for W10 is to reduce the weight of the chassis and this has become the focus of many of the chassis team in the detailed design phase. The Chassis Team would like to thank all those who have assisted to this point and hope that the relationships will continue to grow into the new year.

-Mark Cousins, Chassis Team Leader



POWERTRAIN

After a lot of meticulous preparation, implementation of improvements and hours of committed work from the team the throaty KTM 525cc engine has already roared into life. With an emphasis on improvement of last years performance figures the team is concentrating on getting all we can out of the engine - the new ECU being the first in a line of planned upgrades.....75bhp here we come!

