



February Newsletter

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Techtronics Industries Supports CUFSAE

CUFSAE is proud to welcome Techtronic Industries to the CUFSAE team. TTI is the parent company of consumer, professional, and industrial tools and machinery

brands for all applications. A world-wide leader in high quality home improvement, repair, and construction products, TTI and CUFSAE share the vision of combining

A power tool brands such as Milwaukee and Ryobi that can be found at the Clemson University Formula SAE race shop. Donating at the associate sponsor level, TTI is another natural partner of the team and we are proud to have their support for the 2011-2012 Formula SAE racing season.



Techtronics Industries
North America

exceptional people with the best resources to create a great product. TTI is known for its

CUFSAE and CUICAR Unite

The Clemson University Center for Automotive Research has pledged its support for the Clemson Formula SAE team as a Primary team sponsor. We're very excited to have the help of the best automotive graduate program in the country! **Be on the lookout for a full write-up about this partnership in the March edition of our newsletter!**

Car Update

Work on the 2012 CUFSAE racecar continues daily, and the car has taken definite form! It is "all hands on deck" at the shop as more and more material arrives daily. This week, the out-board designs will be sent to Earnhardt Technologies Group in Mooresville, NC to begin the machining process. In Clemson, the team will be utilizing the mechanical engineering department's Haas CNC mill to create the initial molds for the car's body panels. Last week, a group of the CUFSAE members were trained to use the machine so that we can work

whenever the CNC machine is available.

Michelin has scheduled testing days in March and April for our team and the other Michelin sponsored teams, and we plan to have the 2012 car done by the April event. In preparation for these tests, we will also be restoring the 2011 car so that we can continue testing the launch control and traction control system that was initially implemented after the 2011 competition. Engine rebuilds have been completed, so the car should only need reassembly to be ready to work during testing.



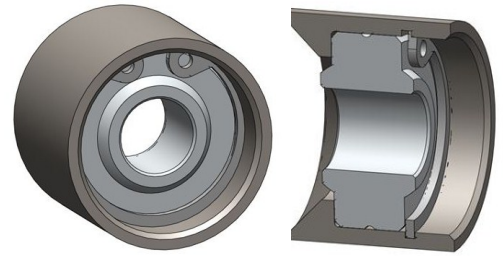
Learning Together

CUFSAE Partners with Isothermal Community College on Machining Projects

Although the team has many resources in the form of fabrication tools, we cannot make all of the parts we design in-house. Like many small companies and race teams, we must rely on partnerships with companies like Earnhardt Technologies Group, Clemson Machining and Technical Services, and others to complete the most complex parts we've designed. Hundreds of machining hours go into creating these parts, which would translate to thousands of dollars spent, if we didn't have the support of companies like ETG and MTS. This year,

CUFSAE found a new partner at Isothermal Community College. With two campuses in North Carolina, Isothermal is dedicated to helping students learn and grow in any field they choose. The school has a growing technical division that trains machinists for the modern workforce.

Knowing the importance of a practical application for one's education, we recognized the opportunity to help fellow students, while simultaneously getting more work done faster. The project turned out really well, and the Isothermal Com-



Isothermal CC Students made these parts designed in Solidworks a reality!

munity College students did a great job making the bearing cups for our control arms. The new design this year incorporated a snap ring to allow for easier removal of the spherical bearings. This slight change added a challenge to the manufacturing process, which Isothermal tackled with great workmanship.

This week the spotlight is shown on our spring team leader, **Kevin Carlson**, a junior industrial engineering student from Charleston SC. He is currently the powertrain and drivetrain team leader, and is responsible for building, tuning, maintaining all of the driveline components of our Formula SAE

racecars. Kevin has just finished two rotations at Robert Bosch,

LLC. in Charleston as part of the ABS/ESP department. His fondest memory of CUFSAE is the first time he drove the 2004 car at the sponsor appreciation day, "the adrenaline rush of flying around the tracks is what got me hooked." After graduating Kevin plans to start his career at BOSCH and eventually create his own engine tuning and development company. Kevin believes, "This program doesn't just produce a prime example of what is possible for the new generation of engineers, it produces the type of engineer that sees a monumental problem and produces a high quality and well thought out solution. The hands on and real world experience gained in FSAE makes us more aware of what is feasible and provides a very specified procedure to approaching an issue that I feel is very hard to find in the classroom."

Team Member

Spotlight

