

MONTHLY BULL-etin



Unveiling Ceremony



USF Racing wowed the audience during the unveiling ceremony revealing F2016. The livery was a major shift from the traditional green and gold, inspired by the University of South Florida's school colors. These colors have also been applied to the team's apparel this year.

Also new this year was the turbo we mounted to our single cylinder Suzuki LTR 450 engine. It creates about 60 horsepower and 38 ft/lbs of torque, a gain of eight horsepower and 5ft/lbs from last year. Despite the new turbo, the overall weight of the engine package has stayed the same by reducing weight in different areas, according to the Powertrain Lead Andrew Keller.

Our aerodynamic package has also become more efficient this year. The car makes 60 lbs of downforce at 30 miles per hour with fewer wing elements on the rear wing.

The car also sports new seat inserts, a Formula 3 steering wheel, brake design improvements, a variety of working sensors and improvements in the suspension design.



(Unveiling photos provided by Roger Cox)

We Finished Michigan!



Out of the 115 teams that competed at FSAE Michigan this year, we placed . . .

47TH OVERALL

Static Events

39th in Design
92nd in Presentation
32nd in Cost

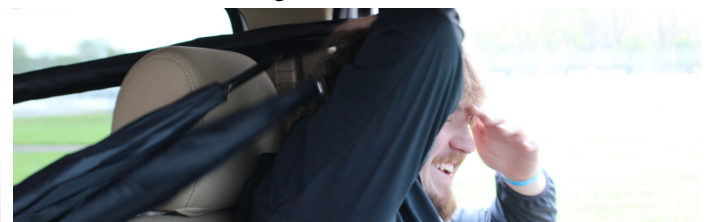
Dynamic Events

26th in Acceleration
68th in Skid pad
41st in Autocross
51st in Endurance
28th in Fuel Efficiency

We are very proud to say we completed all dynamic events. This is the first time this has happened in USF Racing's History!

Competition Story

The team headed to Michigan after what merely felt like a few hours after unveiling by splitting into two groups. One van transported most of our team while our Team Captain and some others stayed on campus testing the car as much as possible. We would meet up at Camp McGregor a few hours after the first van arrived in Michigan.



(Bryan Bean sitting in our Chevy Van)

The 1200+ mile journey would take a total of two days nonstop with team members driving 8 and 10 hour shifts. Some team members managed to acquire cowboy hats on the way there, such as the one Gary is wearing in the photo below.



(Michael Ramos and Gary De La Rosa at Camp McGregor)

First Day at Comp

After meeting up at the campsite and getting some rest, the team headed to the Michigan International Speedway to register our team. Mac Coyne saved the day by hand sawing our trailer lock because he previously locked them inside. Once the trailer got to the paddock, we set up our tents and began preparing our car for technical inspection. We were the 12th team to finish our first technical inspection that day, a great head start!



(First Day at the paddock)

Tilt and Static Events

On Thursday we passed our tilt technical inspection. During this inspection, the car is tilted to test whether any fluids drain out. The officials should not be able to see any draining fluids coming out of the car in order to pass. Passing tilt is a safety requirement in order to prevent fluid from spilling in the event of a rollover and causing a fire.



(USF Racing at the Tilt Station for Technical Inspection)

We also finished our Design, Presentation, and Cost events that day. Design was challenging this year. Team members who were new to the event gave the judges their best shot. There is a great variance in the type of judge that a team is given. Some are harder than others but every year we are given valuable critiques that help us design for next year.



(USF Racing Presenting to Judges at the Design Event)

Friday Dynamic Events

On Friday we were fully teched and ready to begin the Acceleration event. Drew Keller and James Groh drove the Acceleration event achieving a time that gave us our highest placing event of the competition. We continued on to drive the Skid Pad and Autocross event.



(USF Racing next to TU Graz at the acceleration event)

Autocross Crisis Averted

During our Autocross event, I was the first person to see Gary grind to a halt on the hairpin on the farthest point on the track. Through the fence, I yelled out, "What's wrong Gary!" Visibly distraught, Gary yelled back, "The front wing failed!" I ran all the way back to the team standing by the pit cart to tell them what happened.



(Gray Driving at FSAE MI 2016, Photo taken by Bob Phelan)

When our car was towed back to us, we saw that the right attachment of our front wing completely snapped off. It left the lower canards of our front wing to drag on the ground, disintegrating the carbon fiber like a belt sander would.

With about 20 minutes remaining, quick repairs were made to the broken carbon. Luckily, the event was given a time extension of about 15 minutes due to a storm alert that happened earlier that day. This extra time gave us the chance to complete and assemble the attachments to the wing and get Gary back out on the track to earn points for the autocross event.



(USF Racing's Pit Cart and Crew, Photo Taken by Evan Fountain)

Saturday Perils of Endurance



(Michael Driving at FSAE MI 2016, Photo taken by Bob Phelan)

It was a cold and rainy morning and we had prepared the car for Saturday. Nobody was expecting the perils we would face later that day. The ground was fairly dry as we sat in line for the endurance event. The official track condition was dry; even while rain clouds were seen creeping in the distance.

Gary drove his first 10 laps while the weather down poured about halfway during his run. This was a terrible situation for us because we were on slick tires and we couldn't change them during a stint according to the FSAE Rulebook. However, we are allowed to change tires in between runs. The problem was that the declaration of the weather was not on point and the officials on the track would not let us change tires. The weather got worse by the time Gary pulled in for Michael during our driver change. Not only was it raining at this time, but there were high gusts of wind and hail that broke our umbrellas. Even still, the officials would not let us change to wet tires.

So, we had to send Michael out in the middle of a storm, high winds, pouring rain and hail on slick tires. Other teams were affected by the confusion as well. We and a few other teams protested but nothing was done about it.

Although we were frustrated, we had achieved a great accomplishment. This was the first time in USF Racing's history where we had finished every event in the FSAE Michigan competition! Despite the faults of SAE officiating, we had reasons to celebrate.

We spent a day resting at camp McGregor before heading back on our two day trip to Tampa.

Summer Testing



(Non Aero Testing on Campus Lot)

With Competition over, the Summer has provided time for testing and training of new drivers. There was still a lot to learn about the car's performance coming out of FSAE Michigan.

During testing, we tune the car to find the best setup for maximum performance. We experiment with the toe and chamber, suspension, aerodynamic package, tire pressures and engine calibration. We also discover parts that break and make repairs on the fly. The knowledge we gain during this time makes it easier to setup next year's car as well as improve the car's design for the coming year.

No to Canada



After a long discussion, the team decided to not compete at Formula North this year.

The main reason is to save our time and resources to transfer as much knowledge and experience to the future team since many graduating seniors are leaving.

Besides the most important reason, only six of us would have been able to attend the competition.

We were excited to attend Formula North but we will have to attend another season.

Congratulations to all the teams who competed at Formula North this year!

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