

# TTU Motorsports: FSAE Michigan 2016

May 11-14, 2016

Michigan International Speedway, Brooklyn, MI

## Background

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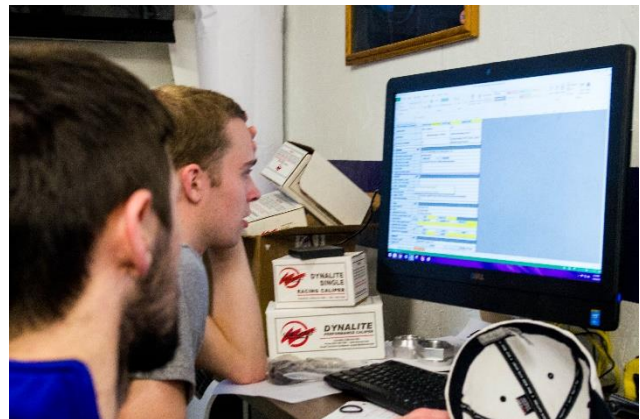
Every year, over 100 international teams come together to compete at the Formula SAE competition at the Michigan International Speedway in May. The competition includes both Static and Dynamic events that make up points for an overall score. Static events include: Cost Report, Design Report, and Business Logic Presentation. Dynamic events include: Acceleration, Skid Pad, Autocross, and Endurance.

While the performance of the car itself is important, the scoring of the static events is equally important. For this reason, TTU Motorsports designs and builds their car based on its ability to meet the standards set in the Business Logic Plan and Cost Report. For the past three years, TTU Motorsports has turned heads at their arrival and continues to greatly improve their performance.

## Preparation

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During the 2015-2016 season, TTU Motorsports worked harder than ever before. Between 20 team members, 50 weeks, 10 hours per week (on average) 8-4:30, and 10 Saturdays, the team still managed to build two complete cars. The first car, nicknamed 'Carl' was completed early so that the team could use it for driver training and perfecting fabrication. 'Zeus,' the second car, was completed for the competition and is nearly identical to the first. Minor difference between the two are present due to improved fabrication techniques from the first iteration and technical rules for the competition.



Throughout the year, the design team ran simulation after simulation and conducted many engine tests to ensure the best performance of the car possible. The cost team read rule after rule and found innovative ways to spend money on manufacturing costs. The business team conducted weekly meetings with local experts to improve their presentation. All in all, TTU Motorsports spent much valuable time preparing for this year's competition; none were disappointed.



## Competition

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As expected, TTU Motorsports was turning heads from the moment they arrived. Not only were they the only team to produce two cars in one year, but also proved their impressive fabrication skills. No other team could compete with the fit and finish of TTU Motorsports.



The competition began with the Static Events. In the end, the Cost Report placed first of 115 schools and set the world record for the cheapest car by several thousand dollars. The Business Team placed fourth of 115 schools and narrowly missed gaining a spot in the top three slots. Design Team showed great improvement from the previous year, moving their ranking up thirty slots from last year's placement.

After passing technical inspection, TTU Motorsports was ready to tackle the dynamic events. Each event gave two drivers the opportunity to complete two runs, scoring the team's lowest lap time. Our drivers put down some of their best lap times in each event, and the team did all they could to drive the car's true potential. Although the team may not have placed as high as they could have overall, each member learned something valuable from this year to improve next year's performance.





## Team Quotes

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“After this year’s competition, TTU Motorsports has moved up 59 places in the rankings, holds the world record for cheapest car, took fourth in the business presentation, dramatically improved our dynamic event results, and continued to impress other students and judges alike with our unique style and design. I’m proud of this team, I’m proud of this car, and I’m excited to see what we come up with for the next one!”

-Sam Cafferty, Lead Machinist & Business Team



“The final product taken to FSAE Michigan this May was much more than just a performance vehicle parading around a track. It highlighted the diligence and diversity of TTU Motorsports, the incredible support from our sponsors, and our vision for high school STEM education. With top five finishes in both the cost and business presentation events, TTU Motorsports opened eyes and caused cameras to follow. Thanks to the help of our sponsors, our car was a crowd favorite, with students and industry leaders alike constantly gathered around the paddock. I’m proud of the students on this team, and I’m excited to watch them continue to make strides on the track and in the community this next year.”

-Eric James, Executive Director & Business Team