Team Updates

FSAE Michigan Postponed & FSAE California Moved to Las Vegas

As the two-month registration payment deadline rapidly approached earlier last month, SAE International decided to postpone the Formula SAE Michigan competition which was originally scheduled for May 5-8. Details about the new competition date were not released, however, the organizing committee stated that they fully plan to move forward with an in-person competition this summer. If their two-month payment deadline is still in effect, it’s likely that the competition that’s slated to happen in Brooklyn, Michigan, would happen in June or July.

The team welcomes the postponement, as vehicle access is still in the works, and the later date allows team members to focus on passing their finals during the last week of April.

Additionally, SAE announced the move of FSAE West from California to Las Vegas, although the MSU Formula Racing Team is not registered for that event. However, once traveling becomes an option and FSAE competitions go back to normal, team members are allured of the possibility of a trip out to Las Vegas for competition.

Manufacturing Moves Forward

One of the biggest challenges of any year is the vehicle’s under-tray—literally. The under-tray spans the entire track-width and wheelbase of the car, making it the single largest component that finds itself mounted to the chassis. Not only large, the under-tray is one of the most critical aerodynamic components as well. It provides around 50% of the vehicle’s down-force with minimal drag penalty.

Cameron Tool Corporation is just down the street from MSU, and they were generous enough to machine the under-tray profile into Obomodulan Type HT tooling board donated by McCausey. Quite obviously, the machining is a major job, but it turned out great. Once the team regains access to a facility on campus that’s large enough to perform carbon fiber layups, team members will certainly be ready to hit the ground running. With the weather warming up and COVID-19 vaccine availability expanding, we expect to resume a normal manufacturing capacity very soon.

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Garrett Colasinski (left) and Jimmy Provax (right) picked up the under-tray from Cameron Tool Corporation late last month while sporting the team’s 2021 apparel!
Featured New Members

**Name:** Cole Nelson  
**System:** Aerodynamics  
**Hometown:** Rochester, MI  
**Major:** Applied Engineering, Mechanical Engineering  
**Class Standing:** Junior

**Why did you choose to join Michigan State Formula Racing?**

Being able to be part of a team of students designing and working on a formula racing vehicle while gaining valuable, hands-on engineering experience is certainly one of the coolest opportunities available at MSU. As a motorsports fan since a young age, I knew that joining the team would be a great fit for me.

**What is your favorite part about being a member of the team?**

As a new member, this whole year has been a great learning experience for me. The team has welcomed me in, and I have enjoyed being able to gain engineering knowledge, as well as learn about the concepts and intricacies of aerodynamics—all while still being able to contribute meaningfully to the next car's design.

**What are you most excited about for this upcoming racing season?**

Due to the challenges of the pandemic limiting my experience with the team to mostly remote, on-line work this year, seeing the car on track for the first time is by far the most exciting thing I am looking forward to. The satisfaction of seeing all of our combined efforts coming to fruition with a fast race car will be highly rewarding.

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**Name:** Greg Koenigsknecht  
**System:** Aerodynamics  
**Hometown:** Lansing, MI  
**Major:** Mechanical Engineering  
**Class Standing:** Junior

**Why did you choose to join Michigan State Formula Racing?**

Coming into this year, I knew that I wanted to get involved in something outside of class, but I just wasn’t sure what I wanted to do. I had seen the team once or twice around campus the previous year but I didn’t think to join until I received a recruitment email with a very cool video detailing what the team is all about. I had actually started a go-kart project the previous summer that I never got around to finishing, and upon watching the video I thought to myself: “forget go-karts, I want to build a formula car!”

**What is your favorite part about being a member of the team?**

The guidance I’ve received from experienced members has been awesome! Before joining the team, I knew the bare basics of aerodynamics, but virtually nothing about the engineering design process. I've come a long way as an engineer thanks to the experience that the team has given me so far.

**What has been your favorite project that you’ve contributed to so far?**

My current and favorite project so far has been re-designing the vehicle’s rear diffuser to allow for more expansion by adjusting the shape and blocking turbulent air coming in from the sides. So far, the car has seen a down-force increase of about five pounds!
Featured Alumni

Are you an alumnus or alumna of the MSU Formula Racing Team that’s potentially interested in sharing your story with the audience of The Spartan Racer? The team’s project manager, Dave Yonkers, is looking for more volunteers to share their team, life, and work experiences in future editions! Please reach out to yonkers4@msu.edu for more details!
Featured Sponsors

**Name:** Cameron Tool Corporation  
**Location:** Lansing, MI  

Founded in 1966, Cameron Tool Corporation is celebrating their fifty-fifth year of continuous growth! They’re committed to excellence in design, CAD/CAM programming, construction techniques, tryout and inspection.

Cameron Tool has been an incredibly supportive and crucial sponsor of the MSU Formula Racing Team in previous years, and this year more than ever. With the current team’s extremely limited manufacturing capacity, there was simply no way to split up and machine the under-tray (mentioned on page one) in-house.

When we reached out to Cameron about the possibility of helping the team with this huge job, they mentioned that they’re extremely busy, but they’re always willing to support the team in any way that they can. We can’t thank everyone at Cameron enough for taking on the team’s single largest machining task of the season.

**Name:** McCausey Specialty Products  
**Location:** Roseville, MI  

McCausey Specialty Products has been in business for over fifty years, and while they started out as a full-service builder supply company for general contractor trades, they’ve since excelled with specialty products for niche markets. One of those products, their Obomodulan Type HT tooling board, is used extensively by the MSU Formula Racing Team.

We use the red 652HT variety (as displayed by the under-tray mold on page one) because it’s light, strong, incredibly easy to work with, and offers the precision necessary for manufacturing carbon-fiber components that shave seconds off of lap-times when compared to other teams.

Sponsors like McCausey generously supply material that the team requires to ensure that student engineers have the resources they need to successfully manufacture cutting-edge designs. We thank them for their generous support!