



THE SPARTAN RACER

GO GREEN! GO WHITE! GO FAST!

JULY 2021



Team Updates

Gearing Up for Competition

It's officially crunch time as the team prepares for FSAE Michigan! The competition schedule follows the same layout as every other year, but with the benefit of having all static events already out of the way.

On Wednesday, July 7th, the team will arrive at MIS and have the entire day dedicated to static technical inspection. If the team does not pass tech on Wednesday, inspection will resume on Thursday. Once passed, dynamic tech (which includes the brake test and the sound test) must be passed. If dynamic tech is passed before the end of the day, the team will then head to the practice track to get some laps in.

The actual driving events start on Friday with acceleration, skidpad, and autocross. The fastest autocross time determines where the team will start the endurance event on Saturday—later in the day is better.



FSAE Michigan Endurance, 2019

Since the team was granted shop access only two months ago, team members and leaders have had to work at an expedited pace to finish the car for competition. With MSU's building restrictions lifted, the team no longer requires a shop supervisor, so manufacturing operations have resumed to the normal late-nights that formula is known for.

Last newsletter, we shared with you that our title sponsor, Pratt Miller, was helping us layup our under-tray—the most important piece of the aerodynamics package. Well, the under-tray is completed and it turned out great!



James Provax (left), the team's aerodynamics lead, with the Pratt Miller composites technician, John Sherer (right), who helped with the layup

Since being completed, the under-tray was topped with the side-wings and mounted to the vehicle. So far, the drivers say that the difference in vehicle down-force that the under-tray generates is helpful around mid-to-high-speed corners.

Testing at Ford's Michigan Proving Grounds

With the vehicle operating reliably around small test tracks in campus parking lots, the team knew that it needed to be pushed harder before competition. It was tough to find someone willing to donate testing time before competition in such short notice, but Ford stepped up and provided us access to their Michigan



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Proving Grounds (MPG). Although a short but powerful thunderstorm necessitated a delay of 1.5 hours, the team was able to get solid laps in around a full-length endurance track—something not possible to do on MSU’s campus! The team’s main goal this year is to complete endurance, so having high-speed laps under the vehicle’s belt is critical. Like almost all formula testing sessions, we discovered some minor issues that will need to be addressed before competition, but nothing that stopped the team from testing at MSU’s Spartan Stadium the very next day.

We’d like to thank everyone at Ford who helped make sure that our testing day went as smooth as possible, especially Leisa Gadille, who was with us the entire day and made sure that we had everything that we needed. Enjoy some of the following photos taken from that day!



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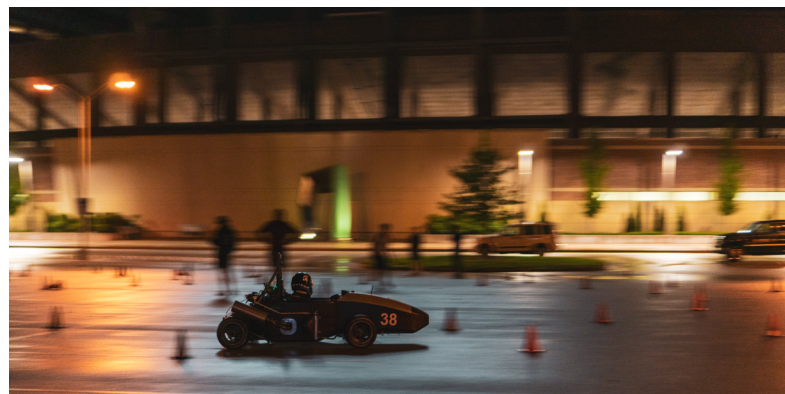
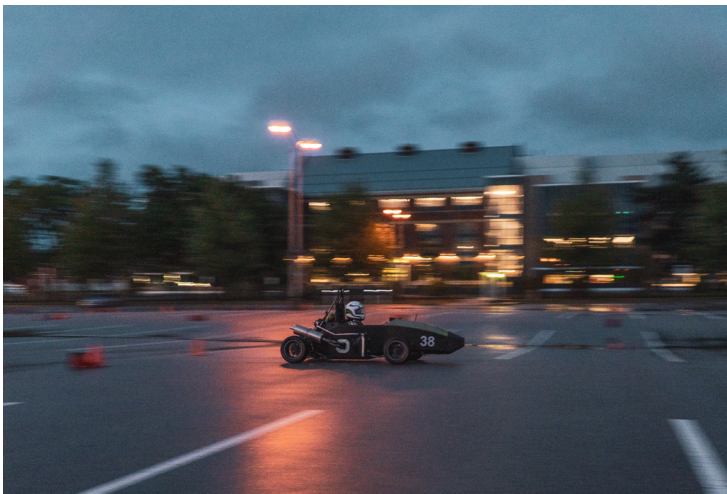


JULY 2021

Testing at Spartan Stadium

Like mentioned previously, the team has been able to test at Spartan Stadium when the lot is empty. The surface is a bit dusty, and there's been scattered shrapnel from tailgates and graduation ceremonies, but once the track is swept, it makes a decent testing surface for medium-speed driving.

Again, enjoy a photo dump of us testing at the stadium!



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JULY 2021

Featured New Members

Name: Manan Patel

System: Electronics

Hometown: Canton, MI

Major: Electrical Engineering

Class Standing: Sophomore



Why did you choose to join Michigan State Formula Racing?

I am pretty interested in racing and cars in general, and I also plan on pursuing an automotive related career, so I figured that joining the team would be a great way for me to gain meaningful experience and have fun at the same time.

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

My favorite part is watching the car drive. It's a great feeling to see everyone's hard work finally pay off, and it looks and sounds pretty cool, too. After being remote for my first year on the team, seeing the car move under it's own power is certainly rewarding in and of itself.

What is your dream job upon graduation?

I'd like to become an electrical engineer in a performance division of an automotive company—like Ford's Mustang division or GM's Corvette division. I think it would be cool to see a car that I helped work on drive down the road one day. In a sense, that's what I'm doing with formula.

What are some of your favorite hobbies or activities outside of the racing team?

I like building and riding gokarts, playing tennis and volleyball, and going out for a drive on a nice back-road.

Name: Povilas Kvederas

System: Operations

Hometown: Vilnius, Lithuania

Major: Economics

Class Standing: Sophomore



Why did you choose to join Michigan State Formula Racing?

Just after I joined MSU, I started looking at extracurricular activities, primarily something related to finance or automotive fields. The words "Formula Racing" caught my eye, since I am a Formula 1 fan, and I was hooked. Building a race car is a solid selling point. I also love improving processes, especially using LEAN tools, and there are a lot of opportunities to practice and implement that within the team.

What do you find most challenging about being a member of the team?

It is probably the fact that I stayed in Lithuania for both Fall and Spring semesters. I have never seen the shop, met any of the members in person, or touched the actual car. This situation might seem discouraging at first but there are positive outcomes from all of this. There were a lot of new opportunities to build better presentations this competition season since they were remote, and we have used that to our benefit.

What are some of the accomplishments you are most proud of since joining the team?

I have worked on the Business and the Cost report real case scenario presentations that placed 9th and 16th respectively. I would say the results are good and I am proud of them, but most importantly I have gained critical experience for the upcoming years of competition.



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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!



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Featured Sponsors



Name: iMBranded
Location: Troy, MI

iMBranded is a Michigan-based manufacturer that specializes in architectural millwork and large format graphics. Their work expands across multiple industries including retail, hospitality, automotive and finance.

From the Detroit Zoo grand water-tower wrap to the largest building wrap in North America that's displayed on the GM Renaissance Center, there is no question as to why they are a national leading manufacturer in millwork and graphics.

Given the time constraint, iMB aided the team in printing, weeding and supplying the vinyl wrap for the car. Historically speaking, the team has painted the car, but moved to vinyl wrapping a handful of years ago to save weight. iMB has donated not only the material needed to wrap the car, but the tips and tricks needed as well. Without their support, the car would not be wrapped in time for FSAE Michigan. Thank you!



Name: Ford Motor Company
Location: Dearborn, MI

Like mentioned previously in the newsletter, Ford's most recent support was providing a day of access to their Michigan Proving Grounds for vehicle testing. This gives the team the rare opportunity to push the vehicle to it's limits before competition. The Ford Product Development Center has also supported the team by 3D printing the vehicle's custom-designed intake manifold. Support like Ford's is immensely appreciated, and we hope to continue the relationship far into the future!

Ford promotes having a higher purpose in serving others and improving lives, which can be seen in their expanding line of vehicles. Their production of electrified, hybrid, and internal combustion vehicles are designed to integrate seamlessly into the new era of electrification. The MSU Formula Racing Team proudly supports Ford and their to create a sustainable future for the planet.



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