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Spring Recap and Plans for the 2020-2021 Season

After unexpectedly being sent away from campus in March, the work on our current vehicle was halted and the three Baja SAE competitions we were scheduled to attend were combined into a single online event.

Virtual Baja took place in mid-June and consisted of workshops held by sponsors and a few static events: design, sales, and cost. The scores were broken up by competition and were based off of our performance in the static events, as well as bonus points if a four-wheel drive design was attempted. We placed 14th and 18th overall, placing 7th, 10th, and 12th in sales and 10th, 15th, and 17th in design. You can [click here to read the full official results from SAE](#).

Looking forward to the 2020-2021 season, it was recently announced by SAE that the season will move forward and there are plans for a hybrid competition in the late spring. There will be a virtual component of the competition where design, sales, and cost events will be held, as well as an in person event where the usual dynamic events can take place. To read more about SAE's plan for the 2020-2021 season, [you can click here](#). For the time being, we plan to participate in both aspects of the competition, assuming the university permits us to travel in the spring and the risks of attending are low.

With the goal of having a working, four-wheel drive vehicle for competition in the spring, we have hit the ground running. Our Design and Executive Boards have been working hard and meeting throughout the summer, and we have finally returned to campus where we can begin manufacturing in our shop. Though this season looks different for us all, we are eagerly anticipating a successful season and look forward to what we can accomplish!

Madeline Bedrock
President, UR Baja SAE



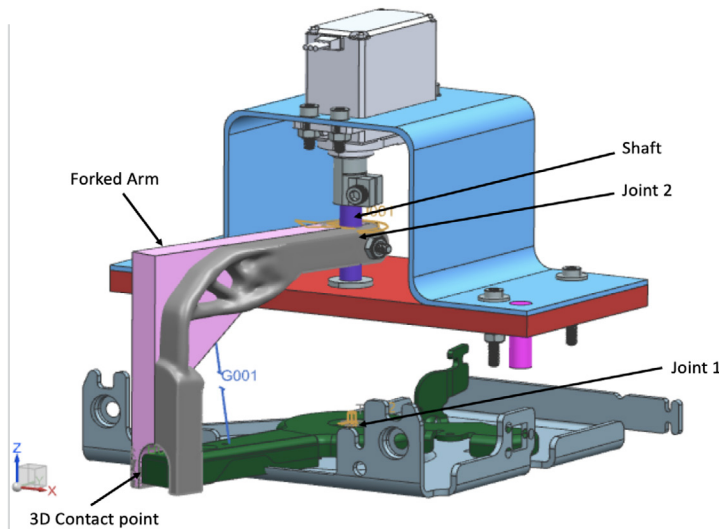
Returning to Campus and Welcoming New Members

By August 24th, most of the team had returned back to campus for hybrid classes to begin on August 26th. Since the beginning of August, students have been required to review symptoms daily for COVID-19 through a service called Dr. Chatbot and prior to moving in on campus, every student was required to get tested. Since we moved in, Baja was fortunate in that we are one of few organizations on campus that is approved to do in person work. Thanks to Professor Muir, we have been able to run our usual 9am-5pm shop hours, while maintaining member safety through our COVID safety plan. With this plan in place, we can have up to 10 people in our shop and 8 people in the Hopeman Basement. In terms of PPE, every member is required to wear a mask and safety glasses at all times. We are cleaning tools in between use and wiping down common touch points (door handles, light switches, etc.) twice a day. We have also been taking advantage of working outside (while we still can) by setting up tables, tents, and tarps. By optimizing our space outside, we can efficiently get work done inside and outside. We are also taking advantage of indoor campus space by using the computer lab in Gavett 244 where we can have up to 27 students working while maintaining a safe social distance. So, even though this semester looks a lot different so far, thankfully, Baja has been able to retain some level of normalcy in the midst of all the chaos.



Update Your Contact Info!

If you would like to continue to hear the latest UR Baja news, [please fill out this form](#) so that we can keep your contact information as up to date as possible. Thank you and we look forward to keeping you involved in UR Baja's future!



Introducing the Autonomous Vehicle Lead

This past spring, Ethan Fahnestock ('21), our Data Acquisition Lead at the time, began a senior design project centered around turning a previous Baja vehicle into an electronically controlled vehicle. With the semester cut short and with garnered interest of the project, the team decided to turn it into a Project Team Lead position. This fall, the team is focusing its efforts to refine designs for control mechanisms for the brakes, accelerator, and steering, while taking advantage of the team's new 3D printer. In the spring, the team is hoping to build an autonomy architecture on top of these control systems. If you are interested in learning more about this new position, please email Ethan at efahnest@u.rochester.edu.

Alumnus Spotlight: Gilead Biggie

Gilead Biggie (Class of 2018) served as the team's Drivetrain Lead and Chief Engineer during his four years on the team. After graduating from U of R, he worked for two years as an Associate Engineer at Volvo in Hagerstown, Maryland. Recently, he has moved back to Rochester to work for SimuTech Group as a Test Engineer. In his free time, he has been learning how to fly planes and, with the help of fellow alumnus Mike Macfarlane, has helped to create the Alumni Advisory Board for the Baja team. We are happy to have alumni like Gilead stay active with the team after graduation and we look forward to see what he accomplishes next!



Plans for Our First Four-Wheel Drive Vehicle

In the 2019-2020 season, SAE announced a rule change that by the 2020-2021 season, every vehicle would have to be capable of sending power to all four wheels. Though COVID caused SAE to extend the rule that 4WD is not mandatory for the 2020-2021 season, we are tackling the problem head on and attempting to design and build our first 4WD vehicle this year. With this comes many new changes to the previous iterations of the design of our car. The main goal is to have a working 4WD vehicle and, though we are still researching new and better solutions to this design task, we have decided to move forward with specific design aspects. First, we will be running a chain drive rather than a gearcase and implement front and rear differentials, while continuing to use a CVT. We also plan to run a prop shaft through the cockpit of the car to the rear of the vehicle and run inboard mounted brakes in the front and rear. The final change we will implement is to mount the engine longitudinally. We hope that by executing these design changes, we will be able to have a running vehicle for the in person portion of competition that will hopefully be taking place in the late spring. If you have any advice or design feedback, please feel free to reach out to us at baja.rochester@gmail.com!



Thank You to Our Sponsors

All the work we do would not be possible without your support.

Especially as we transition to building a four wheel drive system while also attending three competitions, we appreciate any and all contributions as we strive to perform better.



If you're interested in supporting UR Baja, you can [click here](#) to donate securely through the University giving form or [visit our website](#) for information about donating by check.

Tribute to Our Recent Graduates

This past spring, the UR Baja Team said goodbye to 3 graduating seniors: Loren McDonald, Noah Meyers, and Charles Patterson. Each of these members dedicated a large portion of their time to the team during their time at here at U of R. Here is a little bit about what they are up to now!



Loren McDonald served as the team's Business Manager (2017-2018), President (2018-2019), and Chief Engineer (2019-2020) during his three years on the UR Baja team. He is currently working towards a Master of Science in Aerospace Engineering from Stanford University. He is completing classes remotely and is working part time at Mega Fluid Systems as a Manufacturing Engineer. We wish him the best of luck as he works towards completing his degree!



Noah Meyers spent two years as the Suspension Lead (2017-2019) during his four years on the team at U of R. He is currently working as a Mechanical Design Engineer at KLA in Ann Arbor, Michigan, where he is helping establish a center of excellence for vacuum technologies. We wish Noah the best of luck at his new job!



Charlie Patterson, during his four years on the team, served as the team's President (2017-2018) and Drivetrain Lead (2018-2019), is currently working towards a Master of Science in Biomedical Engineering through the Center for Medical Technology and Innovation at University of Rochester. He is also continuing his time on Baja as a graduate student and serving as the team's Chief Welder. We are lucky to have Charlie on the team for a fifth year while he completes his degree!

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