



TEAM HIGHLIGHTS

After our final internal design review at the end of the summer, the team has been busy making final design tweaks for this year's car, recruiting new members, and kicking off our fall projects! Because we can't begin manufacturing parts in-person, our focus this semester is on completing projects that will help the team in the long-term. We've organized our projects into three main categories: testing and validation, experimental design, and new member projects. Here are some highlights from each category:

Testing and Validation

- Steering rack testing
- Rotor and brake testing
- Tire testing rig
- Upright validation
- Linkage validation
- Frame torsion test
- Frame rollover test
- Shaft testing
- CVT backplate deflection
- CVT tuning (on dyno)
- Data acquisition

Experimental Design

- Custom CVT
- Custom u-joints
- Custom master cylinders

New Member Projects

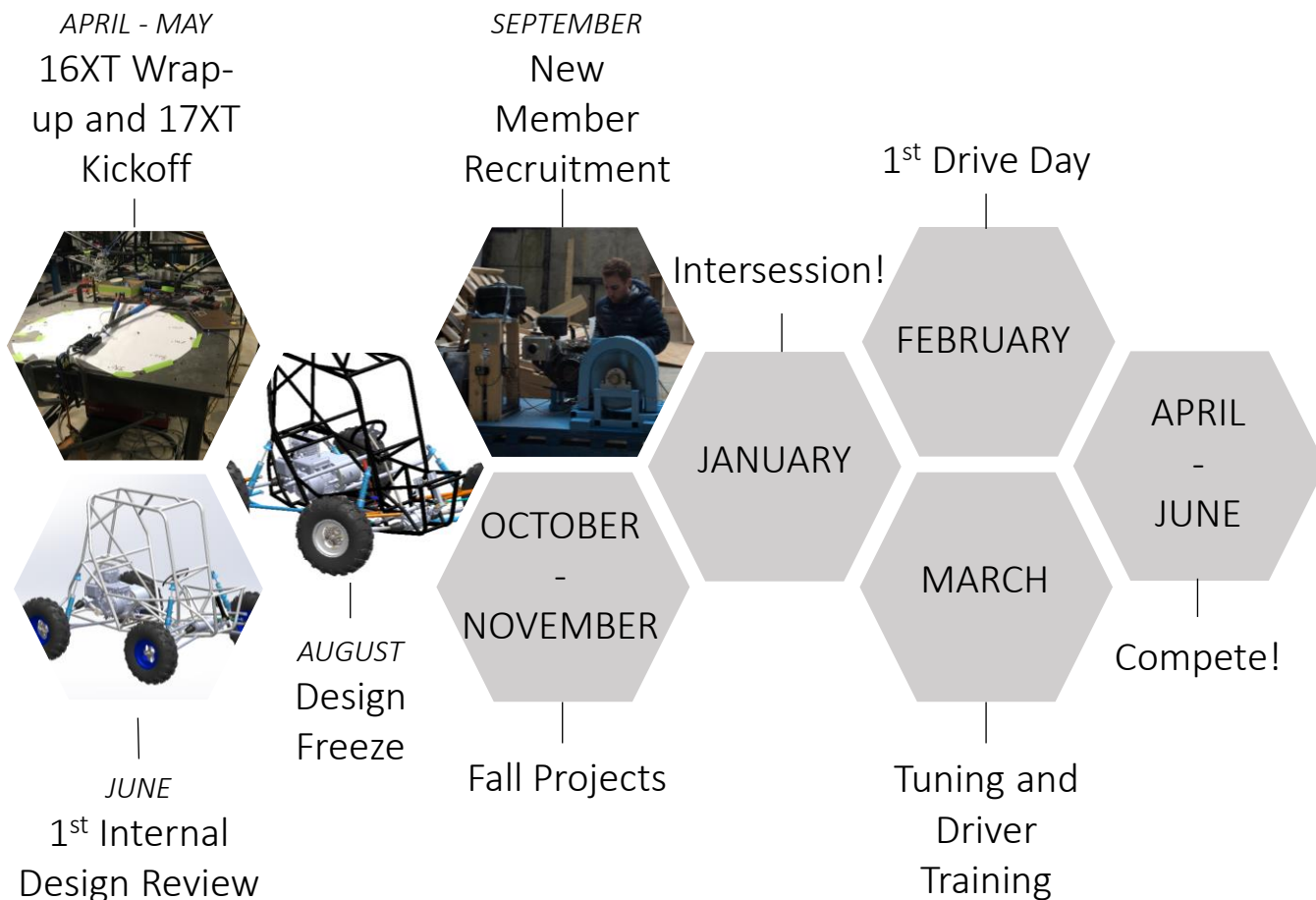
- Sled pull design
- Shifter handle design
- Wooden obstacle design
- On-car speedometer

All of our testing rigs are being designed so that parts can be ordered and shipped to individual students in order to collect real data from parts this semester. The new member projects are also all designed with the intention of being able to complete real parts/prototypes at home!





TIMELINE



ON THE HORIZON

Besides working on our fall projects, we're also finalizing details for this year's car. We're also going to be doing a series of design presentations in October to sponsors, Hopkins faculty, and Baja alumni. We're hoping to use this opportunity to get practice for competition design presentations and get valuable feedback on our designs.

SAE announced in early September their initial plan for the 2021 competition season: there will be a virtual static competition for design, sales, and cost, followed by an in-person competition for the dynamic events later in the Spring. This plan is subject to change of course, but it sounds like the 17XT will be able to compete in some form this year!



SPONSOR SPOTLIGHT

We'd like to give a shoutout to one of our sponsors, Earlbeck Gases & Technologies! Not only does Earlbeck sponsor the argon we use to weld our frame and suspension components, but they also host an event every year to do hands-on welding training with new members.



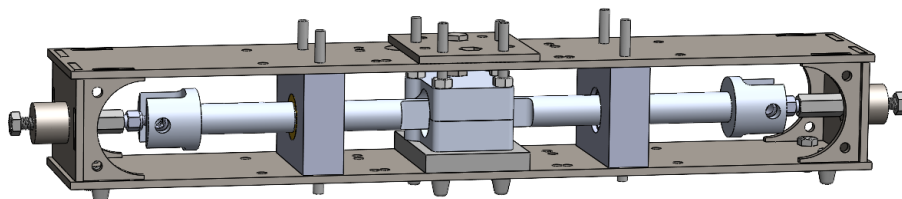
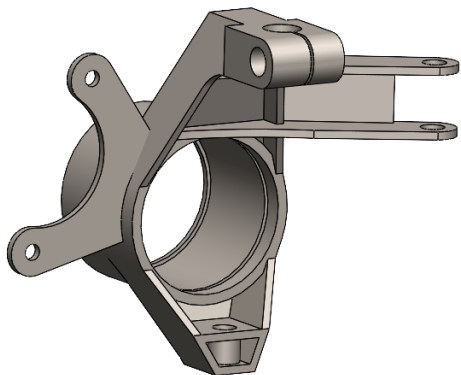
Thanks to Earlbeck, we always have the supplies and expertise we need to make our designs come to life!



TEAM MEMBER SPOTLIGHT



Meet Esteban! He's a sophomore mechanical engineering student from New Rochelle, NY. He joined the team in his freshman year and worked mainly on strain gauge installation and calibration for better tuning of the suspension components. This summer, he designed the front uprights and the steering rack testing rig, and will be using the testing rig in the fall to validate the loads on this year's bimetallic rack. When he's not working on the car, you can find Esteban at the campus climbing wall as one of the Hopkins climbing team captains!





BLUE JAY
RACING

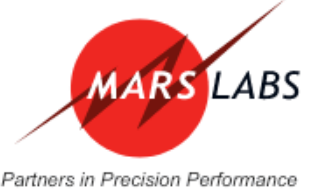
SEPTEMBER 2020

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