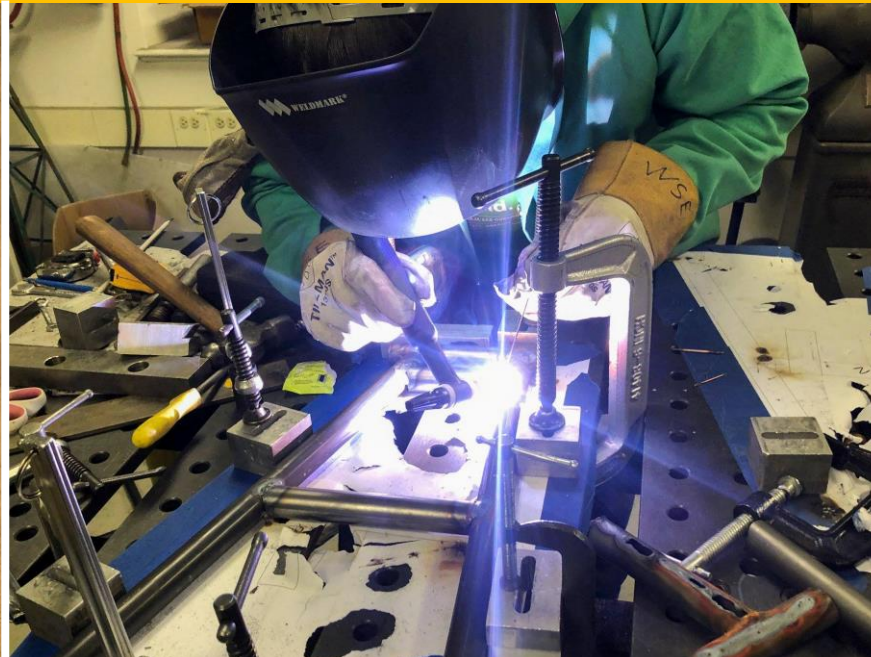


Blue Jay Racing: October Update



Early Fall Highlights: Data Acquisition

We recently completed our first testing session with the 15x instrumented! Thanks to [Mars Labs](#) sponsoring us with the DAQ and associated training, we were able to collect data and begin analyzing the drivetrain and suspension performance. This is a major milestone for the team and will enable us to close the design cycle to optimize individual parts/systems.



Ernie Falcone, President of Mars Labs with the team! He provided an in-depth training with the DAQ which was invaluable to getting the setup on the track.



DAQ wiring completed and on test runs at UMBC's test field! We brought new members to show them some of challenges associated with field testing and to see the car in action.

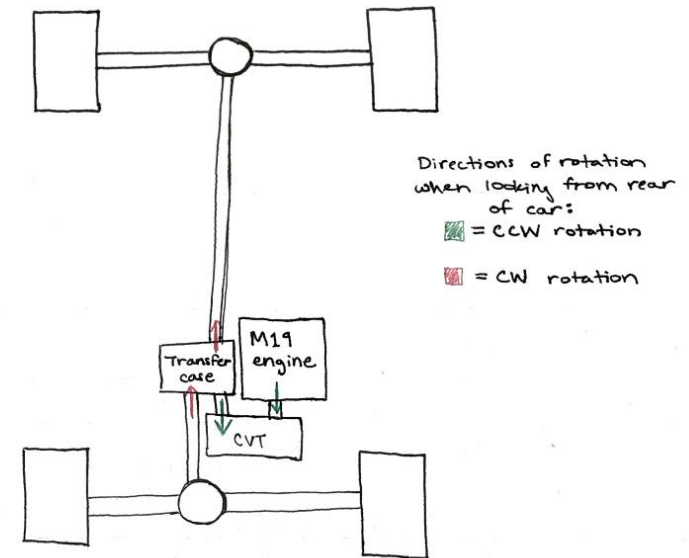
We took the instrumented 15x to UMBC's test track to iron out any problems and measure our CVT performance in hill climb and acceleration. Our first run was very promising, with data from suspension linkage travel, wheel speed, and accelerometer data. We are looking forward to implementing our last few sensors and getting a complete picture of our performance!

2020 Rules Change: 4 Wheel Drive!

SAE stated that all cars from 2021 onward must be capable of 4 Wheel / All Wheel Drive. This unfortunately means that most of the summer design will have to be overhauled. Considering this change, our schedule has been compressed, and will require more COTS components, but we're eager to take on this new challenge!



Our first drive day was a huge success and introduced our newest members to some of the conditions this year's vehicle will have to survive.



Our revised drivetrain layout, featuring a transfer case and front/rear differentials. We're rapidly approaching a first complete iteration of our new design.

We're incredibly excited and to be working with the [Hilliard Corp.](#), who are very generously providing us with two of their differentials. These will allow us to accelerate our design process and will make our drivetrain more sophisticated and robust to off-road conditions by using their Auto Lok™ system.

First Manufacturing Steps

Thank you to [Stanley, Black, & Decker's Makerspace](#), for plasma cutting tabs, a brake rotor, and other mounts for us! This was crucial to getting all our sensors and DAQ installed in time for drive day testing. On top of that, they gave us a tour of the facilities and showed us a few of their unique tools.



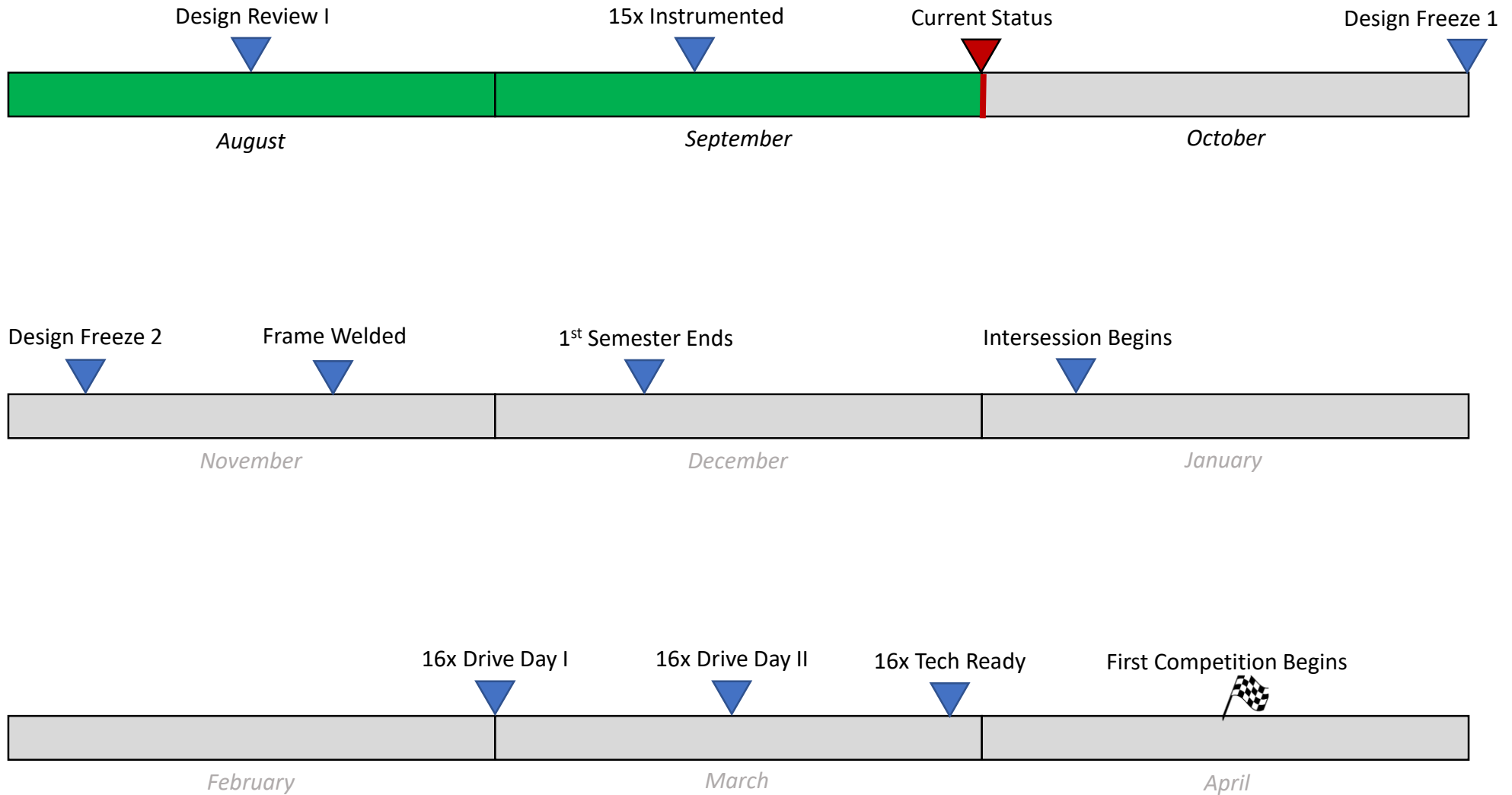
The team with Anna Goodridge, one of the managers of the SBD Makerspace. She operated the plasma cutter, and gave us a tour— on a Saturday, no less!



Our repair on the 15x and installation of our sensors! New members got to get their hands dirty installing sensors, wiring, and welding tabs onto the 15x frame.

We had a great turnout of new members who were happy to begin repairing the 15x and add additional tabs, mounts, and work on our wiring harness. This is one of our biggest turnouts yet, and we can't wait to get them working on their own designs and learning more about the manufacturing process!

Timeline



Thank You for Your Support!

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