



MIDNIGHT MAYHEM



DRIVE DAY



SHOP DAYS

2018-2019 UIUC BAJA NEWSLETTER

THE ROAD SO FAR:

DESIGN PRESENTATION:

This season's design presentation was attended in person by alumni as well as many new and returning members and we were lucky enough to have many alum remotely join through google hangouts. This year's leadership had a blast presenting the design for the 18'-19' car Pollock and we got a lot of great feedback from those who joined- here are they highlights!



MAJOR TAKEAWAYS:

Positive feedback-

- Excited for the expected steering angle range and plan to eliminate steering play
- Glad that there is a backup plan to integrate CV shafts in case of U-Joint fatigue
- Joe's head can fit in the frame!

Concerns and how we're addressing them-

- Have we looked into steering forces?
 - We are running turning impact force on the front uprights
 - Will gearbox input shaft cantilever and lead to bending?
 - No because it is the same as last year and we incorporated a more robust bearing

TEAM HIGHLIGHTS:

- Design on Pollock is finished and manufacturing is underway
- Team roster has expanded to over eighty active members
- Increased shop organization expediting processes

EVENTS AND INVOLVEMENT:

Drive Day-

The annual event of drive day was a total success for us this year. With South Fork Dirt Riders absent their bunk house and with us bringing record number of attendees, we had many members camping out in tents. It was a great weekend to get to know new members and everyone who had never driven one of cars got an opportunity to try it!

Midnight Mayhem-

The team returned to Louisville for the yearly invitational competition- Midnight Mayhem! We had the opportunity to take many new members and who were able to drive during the endurance race of the competition. It was a great way for members to get to know each other and get a look at the competition experience!



MANUFACTURING PROGRESS:



The first hurdle to cover in our manufacturing process was building the jigs – for the frame, semi-trailing arms, and control arms. After some issues with material vendors, we went full steam ahead (upper A-arm jig shown in bottom right image and frame jig to the left). The jigs were assembled and completed early in the build process and then the frame and control arms were welded simultaneously. Having two members welding at the same time was an incredible advantage this build season and it shows in our progress!

The frame is completely seam welded with the exception of a few secondary members. The tabs are waterjet and ready to be welded once their jigs are done. We have an entire set of suspension members welded and ready to be normalized, with shocks on their way and we have all of our uprights and hubs sent out to be machined. For drivetrain, we are extremely excited to show off the new triangular shaft components that have been sent out for machining. As we make progress in the car we would like to thank our sponsors for all of their help this season! We couldn't do it without you!



SPOTLIGHT NEW MEMBERS:



JENNIFER LEONG - SUSPENSION

Hometown: Buffalo Grove, Illinois

Hobbies: Knitting

Favorite show: The Great British Bakeoff

Best Baja moment of the semester: Watching the start of endurance at the Midnight Mayhem competition

ADAM STEPHENS - DRIVETRAIN

Hometown: Plainfield, Illinois

Favorite Hobbies: Making music – playing guitar and baritone

Favorite album: “Songs For the Deaf” by Queens of the stone Age

Best Baja moment of the semester:

The competition in Louisville – Midnight Mayhem



OLIVIA HOLLAND - CHASSIS

Hometown: Born in Chicago, but raised in Evanston, Illinois

Favorite sport to watch: Soccer, ice skating, or hockey

Favorite sport to play: Soccer

Best Baja moment of the semester: Volunteering for carnage at Midnight Mayhem with Rutvi, Jen, and Haley

WHAT'S NEXT?

GOALS FOR THE CAR:

- Driving car February 23rd

TEAM GOALS:

- Get all members with new projects to update the wiki
- Make sure new members are well-exposed to manufacturing
- Have a great time at winter Baja!

HOW WE PLAN TO ACHIEVE THEM:

- Restructure shop days to ensure best utilize each member's time
- A shared GAANT chart to ensure task ownership and enforced deadlines
- Taco Bell



MOVING FORWARD:

Overall, when moving forward we hope to really push in manufacturing. The jigs for the suspension members allow us to efficiently produce them. We hope to, as we work towards our driving car goal, create many spare members to be prepared for competition season. The hope is that Pollock's driving date will give us a comfortable amount of time to test the car, ensure rules compliance, and make any necessary changes.

ALUMNI SPOTLIGHT:

MARIO LOPEZ



Mario Lopez was a part of the waterjet crew and Captain for the ARB/differential project on the 2017-2018 car, Roamer. In addition to that, Mario worked on the builds and redesigns of Ashley, Lauren, and Roamer as well as fixing Lindsey after some Drive Day shenanigans. Now Mario works for Eaton Electrical Services as a field service engineer which has him stationed in Omaha, Nebraska, but sends him anywhere that there is a problem to be fixed. Lessons Mario learned in Baja translate heavily to the work he does now. Being able to come up with solutions to problems as a group is incredibly important in off-road racing and a huge aspect of field service engineering is running into problems and communicating with a group to find the answer.

Mario was also extremely involved in Baja which taught him about time management and task delegations. Now a Lead onsite for Eaton, Mario uses his Baja experience to help him stay organized, lead a group, and delegate tasks. "Being a part of Baja is probably one of the best decisions I made in college," Mario commented. One of the most notable impacts Baja made on Mario's life was that it helped him see what sort of job he would be interested in having- the experience on the team showed him he was looking for something more hands on and that he wouldn't want to always be at a desk. "Baja also helped me get through school," Mario said. "Actually applying what we learned in class was more enjoyable than just doing practice problems." Mario's favorite competition was Kansas in 2018 with Roamer. The team performed well despite a huge storm coming through mid-competition. His favorite memory was being in the pits at a competition and hearing another team's member yell after their driver, "Three-quarters send it! I want to drive next!"



LEADERSHIP

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