

# CU HYPERLOOP

## April Newsletter

### Competition Results

The 2024 'Not-a-Boring' Competition has wrapped up, and our team has finally had a chance to catch up on much-needed rest. Over the last week, we've worked tirelessly to integrate our system and clear all safety checks in preparation for our dig. We're thrilled to announce that we secured second place and were honored with the Innovation Award for our inflatable gripper system.

While our machine passed all testing and security checks, due to a failure in our motor controller, we were unable to commence digging. After hours of troubleshooting the team was unable to diagnose the issue in this critical component. While the competition's challenge—to dig a 100 foot tunnel—remains unmet by any team, this year's winning team dug a total of 5 feet. This illustrates the depth of this technical challenge, which we feel poised to achieve in the 2025 competition cycle.

Although not being able to dig was a significant disappointment, our team firmly believes in learning more from our failures than our successes. With this mindset, we are diligently addressing our points of failure to ensure we're fully prepared for our future endeavors. The motor failure highlights the importance of redundancy throughout our machine, and we are working on design revisions to avoid similar failures in the future.

We would like to share our deep appreciation to our sponsors whose generous donations remain foundational to our mission to revolutionize the future of tunneling technology and shape the engineers of tomorrow.



(Team Photo taken at Competition Kick-off)



(Team Picture with the Innovation Award)



(TBM on Day 3 Prepared for Safety Check Inspections)

# Welcoming New Leadership

As we begin the 2025 competition cycle, we are excited to welcome our new Team Lead, Zaphod Schmidt, and Chief Engineer, Mateo Medellin. Before introducing them, we wish to extend our deepest gratitude to Ferin Von Reich and Max Balasubramaniam for their exceptional leadership throughout the 2024 'Not-a-Boring' competition cycle. Their guidance propelled us to the best year in our club's history, culminating in winning the Innovation Award. Additionally, we achieved two significant milestones: conducting our club's first independent test dig and successfully testing all subsystems for the first time.

Zaphod Schmidt, stepping into the role of Team Lead, is a senior pursuing a Bachelors of Science in Computer Science with a minor in Electrical Engineering. He previously served as our Software Lead during the 2024 cycle, additionally he made significant contributions to our software development in 2023, helping us clinch the Accuracy Award for our navigation system. His leadership and technical skills are poised to guide us to new heights in the upcoming competition.

Mateo Medellin, our new Chief Engineer, is a senior pursuing a Bachelor of Science in Mechanical Engineering and Applied Mathematics. Having been an integral part of the team for two years, Mateo was the lead engineer behind our propulsion system, which won this year's Innovation Award. His expertise and dedication will be an invaluable assets to our team's success



(Zaphod Shmidt and Mateo Medellin)



(TBM Being Lifted to its Launch Position)



(Preparing the Launch Stand)



(Team Picture on Dig Day)