NEWSLETTER

TRITON ROBOTICS

Thank You For Your Support!

With your support, Triton Robotics has been able to push boundaries and explore new horizons this quarter. Your contributions have empowered us to try innovative approaches in our projects, refine our skills, and tackle challenges with creativity and determination. From experimenting with new design techniques to optimizing our robot's performance, we've grown as a team and made significant strides. Thank you for enabling us to dream big and make it happen!

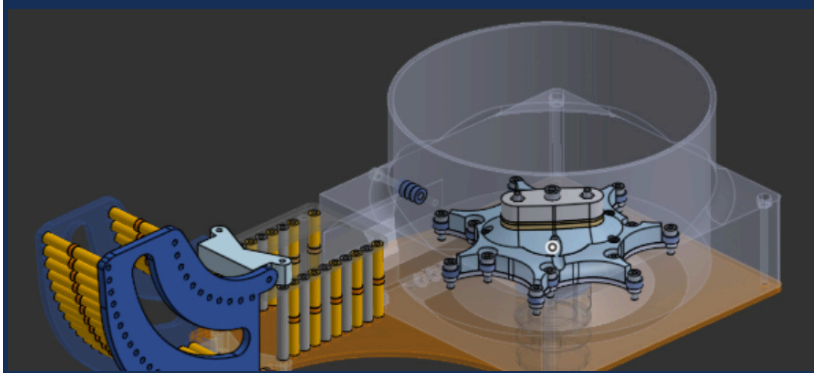Triton Robotics extends our gratitude for the generous support we've received from you.

TEAM UPDATES

**TRITON ROBOTICS**

MECHANICAL

HERO

For our latest Hero Indexer redesign, we have achieved improved reliability and reduced jamming with a better ball path. This allows the entire assembly to fit inside the chassis, making the turret lighter. Additionally, our custom wheel hub assembly now allows for a more secure attachment to chassis motors and is standardized across all robots.

INFANTRY AND SENTRY

Our new suspension has a four-bar linkage design that is more robust and easier to maintain than the previous linear slider design. This new module is also easier to modify and drop into other robot designs.
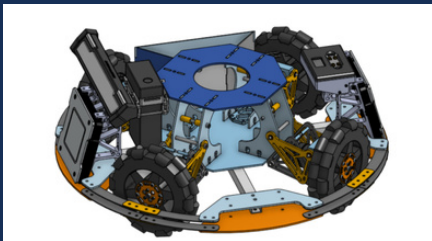

As Infantry and Sentry share very similar chassis designs, they have been designed and prototyped in parallel. This new chassis design focuses on rigidity and ease of manufacturing. It also features easier to access electronics bays, a sturdier aluminum bumper ring, and armor panels that can be easily staggered to throw off enemy robots.
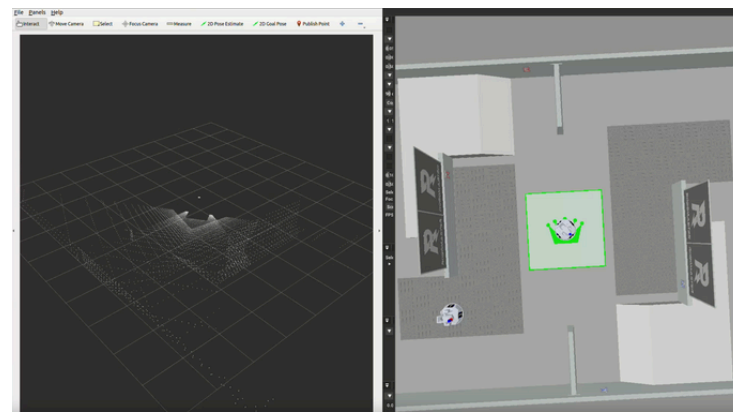
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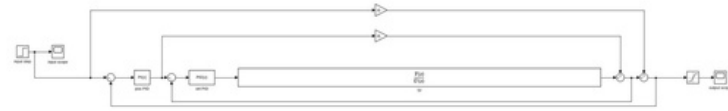
Our controls team completed full system characterization and built a Simulink model that uses MATLAB's AutoPID tuner, allowing us to tune and optimize our robots' performance more efficiently than ever.
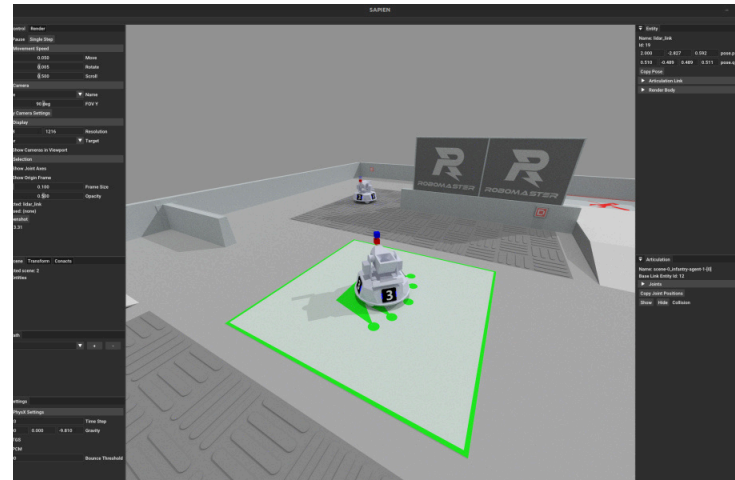
AUTONOMY

Autonomy developed a new robotics simulator using the Maniskill/SAPIEN framework. Through our simulator we were able to develop our computer vision pipeline remotely even without access to our project space and robots.