

## About our team:

8995B Hat Trick, is an all-freshman Vex Robotics team from Metea Valley High School. We consist of 6 students who are split into two programmers, two designers, and two builders. Our main goal is to learn more about engineering and inspire others through competitive performance. We have spent 15 combined years competing in robotics competitions, and received 11 total awards:

3x Tournament Champions

2x Excellence

2x Tournament Finalists

1x Energy

1x Design

1x Build Awards

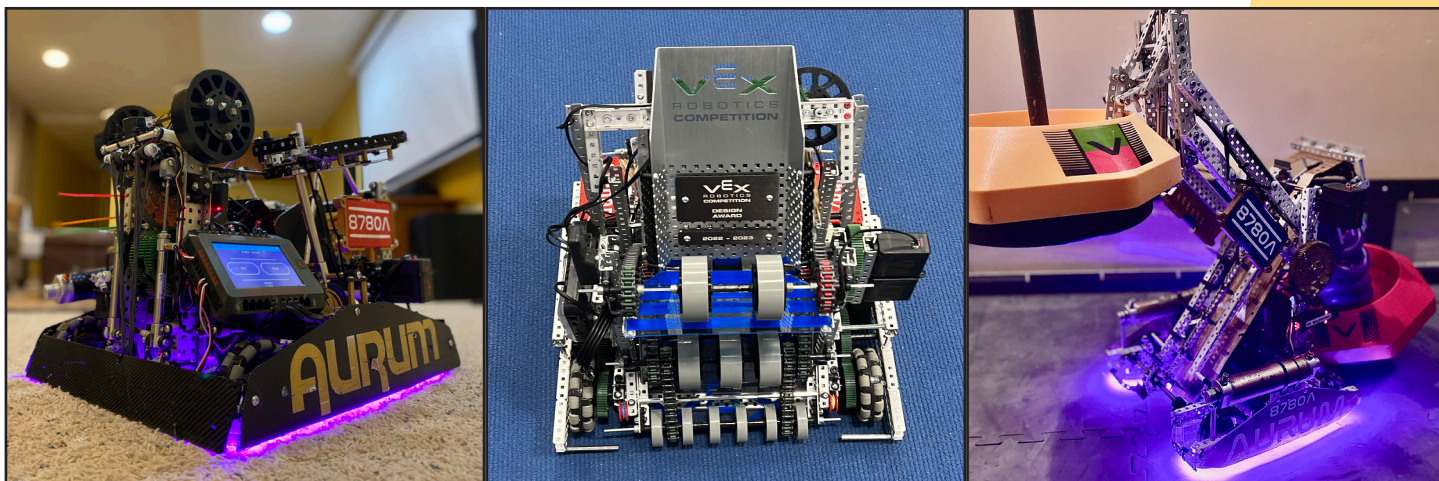
2nd Place Skills

## Metea's history:

Metea Valley Robotics was **founded in 2014** as part of the STEM program and soon came to be a close community of 36 students. The club is also overseen by two coaches, which help keep the club running. Over the years, Metea has sent teams to state and international level **"Worlds" competitions 8 times**, and received awards such as:

7x Tournament Champions		5x Excellence		4x Skills Champion	
4x Design	6x Tournament Finalists		3x Create	2x Judges	
2x Innovate		2x Build Award		1x Amaze	

## 36 Awards and 9 years of history



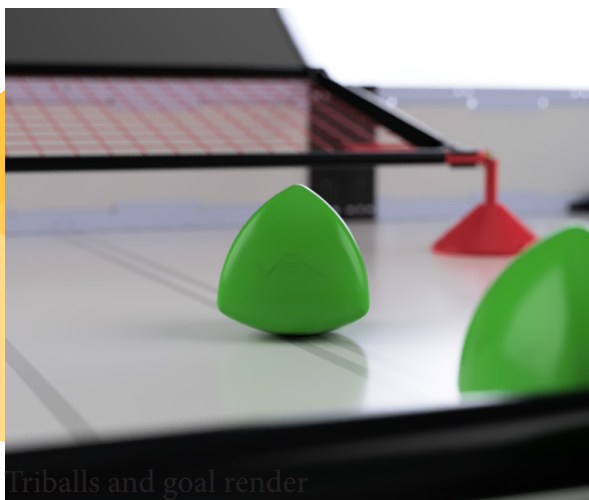
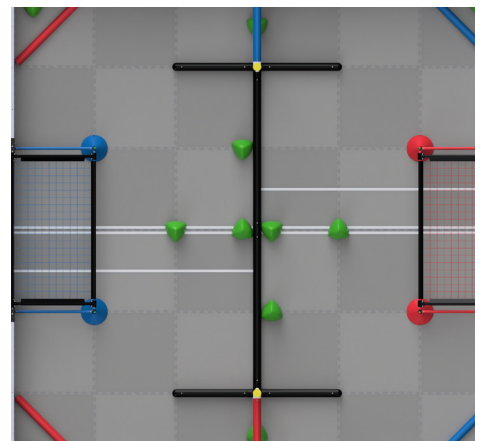
# What is Vex?

Vex Robotics is an international competition where **middle and high students get to design, build, and program robots for an annual game-based competition.** Using various materials such as aluminum and steel, plastics, and various electronic components: teams must make a robot to complete the tasks for the current game (see "Over Under"). Through this program, students across the world get to learn the various fundamentals of **communication and problem solving skills**, as well as have fun at year-round events and competitions .



## Current robotics season:

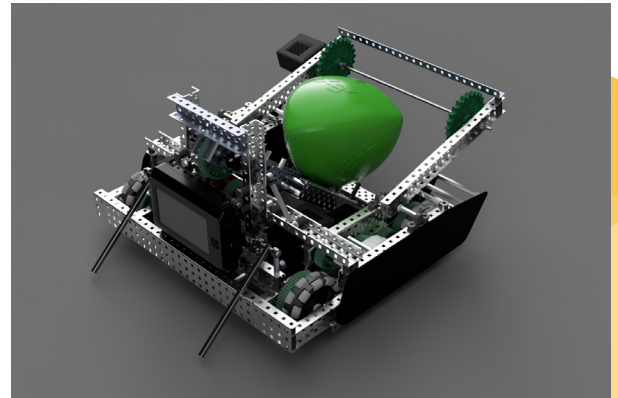
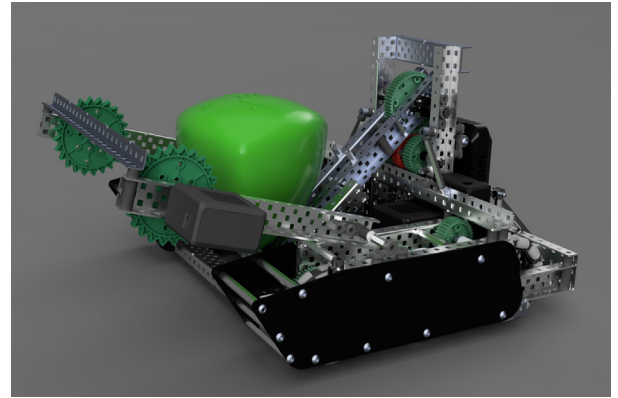
The current game for the Vex Competition is called **Over Under**. This game is played on a 12 foot by 12 foot field by two alliances, one red and one blue, composed of two teams each. These alliances compete in matches consisting of a 15 second autonomous period, followed by a one minute and forty-five second driver controlled period.



The goal is to **get more points than the enemy alliance** by scoring different colored "Triballs" under the nets and elevating your robot using the alliance poles at the end of the match. Each alliance has 1 goal located on opposite sides of the field, where they can score triballs. In total, there are 60 triballs (including 22 match loads) and 1 set of elevation bars per alliance.

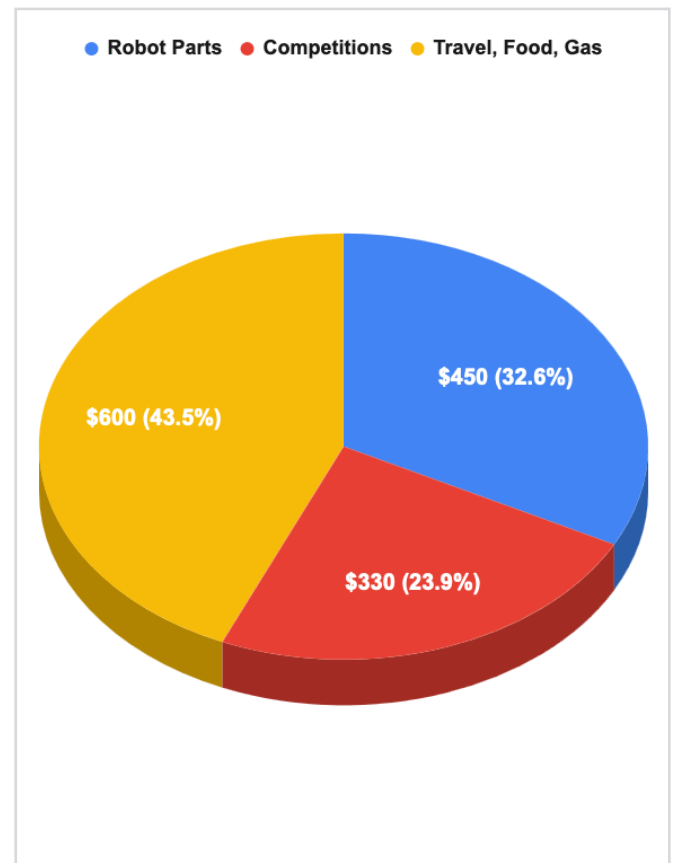
## Our Robot:

Our robot for the Over Under season is **designed to be able to do all the tasks the game presents.** The drive is made to be a balance of speed and torque, so we will be able to maneuver around the field effectively by going over the barrier, pushing Triballs into the goal, and pushing other robots around. We also have a catapult which will allow us to quickly get Triballs to our side by launching them over the barrier, AND we can use it to climb on the low elevation bar. Lastly, we also have designed an intake to get Triballs into our catapult, which adjusts to the unique shape of the Triballs as it rolls.



## Expenses:

- **Robot:**
  - Mechanical Parts: Steel, Aluminium, Wheels, Screws, Spacers, Plastic sheets, tools.
  - Electrical Parts: Different rpm motors, robot batteries, sensors.
- **Tournament Registration:**
  - State Registration (\$160), 2x Local Competitions (\$200)
- **Travel, Food, Gas:**
  - Gas, food during competitions, hotel costs.





# Sponsorship Tiers:

## Gold Tier: \$1000+

- Large logo displayed on robot, priority placement
- Large logo and Title on shirts saying our team is "presented by" your company
- + Silver Benefits
- + Bronze Benefits

## Silver Tier: \$500+

- Medium logo displayed on robot
- Medium Logo on team shirts
- + Bronze Benefits

## Bronze Tier: >\$250

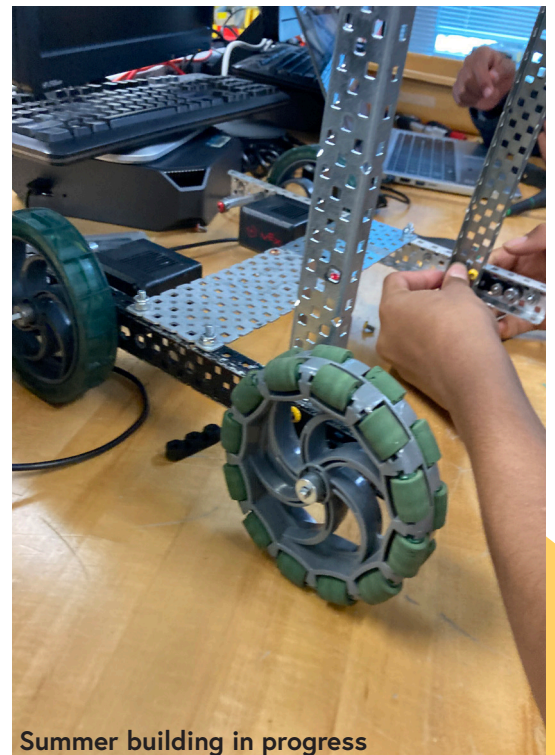
- Logo on all promotional material, posters, and engineering notebook
- Small logo on team shirts



Example of your logo on our robot

## Impact on students:

By supporting our team, you will not only be supporting us through this season, but you will also **impact younger students out-of-season during Metea's annual summer camps**. These camps provide middle school students in the Naperville and Aurora region to get an introduction to Vex robotics and engineering in general. Students will also be introduced to a variety of skills ranging from programming in C++ to CAD. So, the same parts and experience acquired during this season **will be used in the summers by middle schoolers** to make their own robots for years to come. Some members of our team will also be mentoring them.



Summer building in progress

## Contact Us:

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### Primary Contact:

Team Outreach  
8995BRobotics@gmail.com

+ If you decide to schedual an appointment, please refer to the email above for all communication.



1801 N Eola Rd, Aurora, IL 60502

## Donation Info:

Team 8995B is part of a 501(c)(3) nonprofit organization. A 501(c)(3) form can be provided on request. Appointments and calls can be set up if more infomation is needed. All donations are tax deductible.

We accept monetary and in-kind donations!

