



What's the Buzz?

Season 28



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In Loving Memory

On January 18, Jeff Wilhelmsen sadly passed away after a brief battle with Pancreatic Cancer. He was a mentor at buzz for the last 20 years. During his time at buzz he had impacted so many lives, he will be missed dearly.



“Jeff is the reason why I am going the path that I am going down. He made sure I was confident in everything that I was doing and me realize my love for many things in life. He taught me everything about the field of electronics, from what a connector was to how to make a full electrical system. He was always there for me and would listen to anything I had to say whether or not it was about robotics.”

- Andrew Halsey

“He made me feel confident in everything I was doing, not just with robotics but with everything in life. I could talk it him about anything going on and he would be there to listen as well as help me out if I needed it. He was just someone that was there for me and helped me out in more ways than one.”

-Anna Carlo

“He taught me most of what I know about robotics. He always made sure I knew the name of tools because if we called something a “thingie” or “stuff” he always made us figure out the name of the tool. He also helped me find out what I want to study in college, and that I want to stay in the electrical field.”

- James Gannon



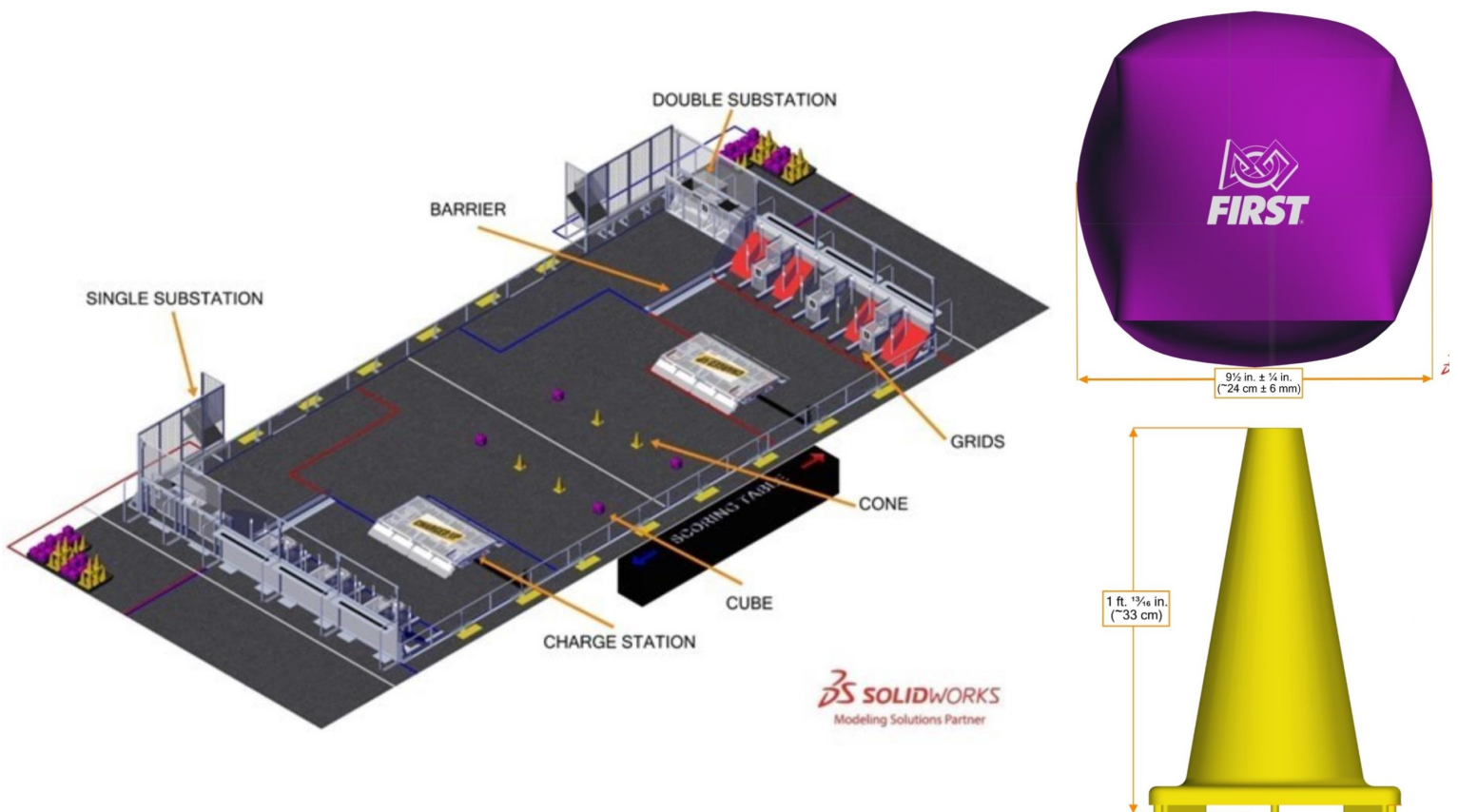
2023 Game: CHARGED UP

The 2023 game, CHARGED UP, is played by two alliances made up of three robots each. The alliances race to score points by putting game pieces (cones and cubes) on their designated nodes and docking or engaging with their charge station before the match is over.

The game starts with a 15 second autonomous period where the robots are pre-programmed with instructions to score game pieces, dock or engage the charge station, and leave their community. Next, the teleoperated period begins and drivers are now able to control the robots for the remaining 2 minutes and 15 seconds of the match.

Additional points can also be scored when there are three adjacent nodes in a row which contain scored game pieces (called a link) and if a robot is completely contained within its community at the end of a match.

Watch the game animation here: <https://www.youtube.com/watch?v=0zpfIsYc4PA>



2023 Season Kickoff

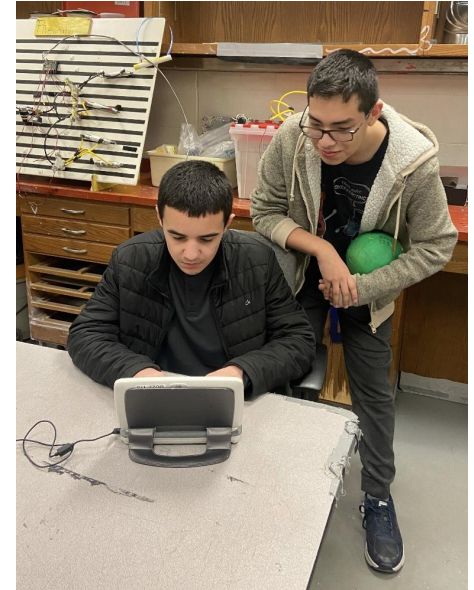
Kickoff for the 2023 season happened on January 7, 2023. The team watched the *FIRST* game reveal livestream at the Enfield Annex. After that, we split up in groups and read the game manual and later came together to explain what we learned to the rest of the team. Next, we wrote down our first thoughts of the game and how to score points in both the autonomous and teleoperated period. We went over what the tiebreakers are and what happens if there are penalties. Finally, we ended the night by having a team pizza party with our families, mentors, and alumni. We explained the game to everyone and told them what we were planning to accomplish in the 2023 season.



First Weeks of Build Season

We started off our build season by brainstorming robot actions that would benefit us in a match. Then we sorted these actions into must have, want to have, and nice to have to determine what our priorities are. After this we combined some actions and made a list of our top 3 priorities and then split off into groups to start completing them.

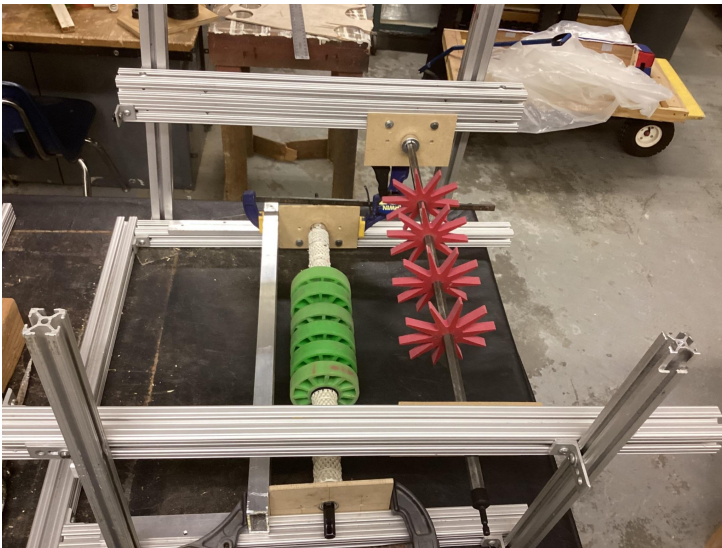
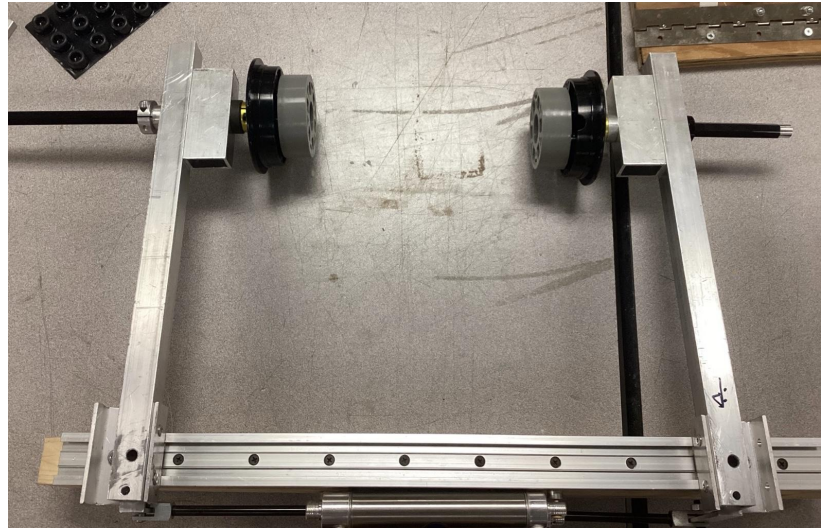
Programming: The programmers coded basic drive, manipulator, vision, and three autonomous modes. They also completed many other programs to make the robot function and run. Additionally, they have been programming the scouting app for competitions.



Electrical: The electrical team spent the first weeks of build season getting a whole new electronics system as well as making a breadboard with the programming subgroup. They also worked on the electronics for the charge station on our practice field. Additionally, they worked on organizing the shop to make sure all of the parts available were functional.

First Weeks of Build Season

Manipulator: Part of the mechanical team worked on and completed a manipulator prototype. They tested different pivot points, different arm shapes, and different gripping material. It took some trial and errors but they finally found a combination of parts that worked.



Intake: The intake sub group worked on completing our other functioning prototype. They came up with an intake with two sets of rolling wheels. They tested different placement of the wheels and finally found a placement that allowed the game pieces to enter the robot in any orientation. Now they are working on a way to orient the cone after it comes into the robot.

CAD: The CAD team worked on different parts of the manipulator to help decide what combination would work the best. They also used different types of arms to experiment which options were most viable for this season. Now they are working on a drop down idea for the intake.



Boston Dynamics

Buzz had the once and a lifetime privilege to visit Boston Dynamics. We toured the facilities and got to see where the magic happens. We *spotted* where the robots were tested and programmed. Additionally, we saw a demonstration of Atlas doing parkour and flips. We got to drive Spot, “one of the dog robots.” To complete this wonderful experience we got to see the museum that showed the progression of the work at Boston Dynamics.



Community Outreach

One of Buzz Robotics' main goals is to spread STEM education in Enfield. So when there are opportunities to present one of our robots to a variety of age ranges, Buzz is very excited to be able to show off our team. Part of our demo lets kids interact with Davis, such as feeding balls and having them catch once they were launched.

Program of Studies Night:

We had the opportunity to bring Davis to Enfield High on February 1st to show the up and coming 9th graders what the Buzz Robotics team is all about. We showed them how Davis works and we let them feed and catch the balls. Also, we told them what a typical season is like on the team and what to expect if they want to join robotics next year.



Sponsorships

Platinum Supporters: Donation of \$5,000+



Gold Supporters: Donation between \$2,500-\$4,999



Silver Supporters: Donation between \$1,000-\$2,499



More information about supporting our team can be found on [our website](#).

Current Events & Fundraisers



Build a Bot:

This season, Buzz participated in “Build-a-Bot”, where we asked for donations from our neighborhoods and family. After a couple weeks of collecting money we raised a total of \$3,073. Thank you to all who donated!

Bottle and Can Collection:

Buzz is holding a bottle and can collection to raise money to go towards t-shirts and other items. We have collected cans from around our community and we have over 40 bags so far. We will continue collecting throughout the whole season.



Current Events & Fundraisers



BUZZ ROBOTICS

Cosmic Turtle



Paint Night

Saturday, February 25th, 2023

6:00pm-9:00pm

Enfield Town Annex Cafeteria (Enrico Fermi High School)

124 N Maple ST., Enfield, CT

Child Tickets (12 & under)- \$30 Adult Tickets- \$35

Available in advance from any Buzz Student (limited tickets available)

Or email frc0175@gmail.com with questions





BUZZ ROBOTICS



Pasta Supper

Thursday, March 23rd, 2023

5:00pm-8:00pm

St. Jeanne – Jugan (Formerly St. Bernard Church)

426 Hazard Ave., Enfield, CT

Tickets \$10, raffle tickets sold at the event

Available in advance from any Buzz Student and at the door.

