



BONDS Week 6 Newsletter

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Introduction

Welcome to the sixth week of the BONDS Status Report of the 2023 season! In this entry, you will see what BONDS Robotics accomplished in the sixth week of our official season for this season's 2023 FRC competition, Charged Up!

The team had a very successful week. We began by finishing the articulation mechanism's superstructure and assembling the arm and the intake. Next, our electrical team started wiring the robot and worked with the programming team to achieve their goal of a functioning robot. The articulation and the intake are fully operating, and the build team is one week ahead of schedule, finishing the robot at the end of this week! Finally, the business and marketing team is working to finalize a t-shirt design and pit banners for the competition. Our team has been working diligently to finish the robot, and we are excited about what the next few weeks will look like.

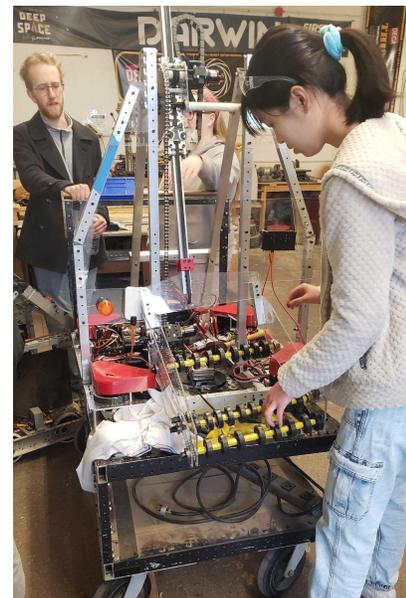


Build Team

The build team started to machine the gearbox using the Omio to put on the robot. We successfully assembled the gears with the correct gear ratio and built the planetary gearbox that would go on our articulation mechanism. The gearbox allows the articulation to go in and out.



The articulation team manufactured the final intake and transferred parts to the new arm. After the component was assembled, we put the arm on the robot and tested if it could rotate and move in and out. The intake was proven that it could perform. Next, our team built the side plates out of Lexan using the X-Carve and assembled the final intake to place on our robot. Following the robot's completion, we found that we ran into issues concerning the arm of the robot. The arm and the intake connection are



fragile and could break during a match. The bearings were also loose both on the intake and the arm. Our team will continue to resolve these issues during the next few weeks as we head to the competition. Both the mentors and students are proud of what they have accomplished. Our team can agree that we are better than the previous year and will continue to achieve the goals we set for the season.

Electrical Team

While the build team was assembling the robot parts, the electrical team started wiring the robot. They helped the build team by wiring the robot's wheels and arm for the programming team to begin testing the limits of the arm. The electrical team ended this week by finishing the robot wiring to move.



Programming Team

The programming team had a productive week! They started by downloading the necessary code for the season. They also tested the arm rotating at different speeds on the robot. Finishing the week, the programming team trained new students and set up April Tags, which allows the robot to know where it is on the field by seeing the tags around the field. We are excited to see the robot come to life. Keep up the excellent work!



Business and Marketing Team

This week, the marketing and business team came up with t-shirt designs for this year. Our team decided on the name Octavia based on a movie from the James Bond series. Although our initial design correlated with the robot theme, our team concluded that we would still like the name Octavia regardless of our new intake design. The team also started designing pit and robot banners that would go on our robot. We are looking forward to an excellent t-shirt design that we could showcase at the competition.

We want to give a big thank you to all of our sponsors! Our team can compete because of your support, and none of this would be possible without our sponsor's help. Our team, BONDS, will keep improving and continue learning STEM skills and values this season.

To see our season's progress, please follow us on Instagram, Youtube, Tiktok, Twitter, and our official website for weekly newsletters.