



BONDS Week 8 Newsletter

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Introduction

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

We are nearing competition with less than ten days left! Our team has been working hard to meet scheduled deadlines and finish the robot. The build team has finished assembling the robot and has handed the robot to the programming team this week to spend coding the articulation. This week, we also announced the new drive team for the 2023 season! As we head to our regional competition, we are excited to have new and returning members on the drive team this year!

Build Team

The build team continued to manufacture and assemble additional parts for both mechanisms. Throughout the week, we had technical difficulties with the robot, such as fixing the articulation's rotation function and bumper heights. Finally, the team started ironing the numbers for our bumpers which will go on our robot before the competition. This year, our team decided to make one set of bumpers that would be one color and make a cover for the other color, saving the team some time during matches and would be easier to pull on and off when switching colors. Our team is excited to see the final robot drive on the field, and we cannot wait for the competition!

Programming Team

This week was programming week for the programmers! The programming team accomplished numerous tasks during a tough, stressful week. We are proud of the programmers and thankful for the mentors who supported the team. The team started this week by mounting a potentiometer next to the arm shaft to measure the angle of the arm on the robot. The programming team could rotate the arm and set limits to the arm, so there were no conflicts between the robot and the arm. Setting limits to the arm is crucial when programming because of the two-side extension rule, where a robot cannot extend in more than one direction. The robot can drive during teleop mode, which is



the second phase of the match lasting two minutes and fifteen seconds. During this time, drivers are in total control of the robot. Our team was thrilled when we saw the robot come to life. On Saturday, March 4th, the programmers took the robot upstairs, where they arranged a mock field. Next, we tested the robot going up the charging station, picking up and placing game pieces onto the nodes. The robot accomplished both tasks, and our team is proud of what we have achieved in a short period.

Business

The business team started working on pit binders for this year's competition. Pit binders are vital when presenting our team. The team compiles the team's progress and arranges the documents in different binders, which we present to the judges about our team. A pit binder could assist the team in winning numerous awards at the end of the competition. This year, the main pit binder will contain the mechanism portion, which will feature 2D CAD drawings of parts, an electrical component section listing the wiring integral, and a programming section. The outreach binder will include marketing management, outreach materials, and the demographics of our team. The third binder will be the business plan for how our team runs financially. These binders will present how our robotics team operates, which can be crucial to delivering in the best way possible by demonstrating in this year's pit binders. The business team will work with the build, programming, and electrical teams to gather material and data for the pit binders.

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 continue improving and 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.