



BONDS 581F

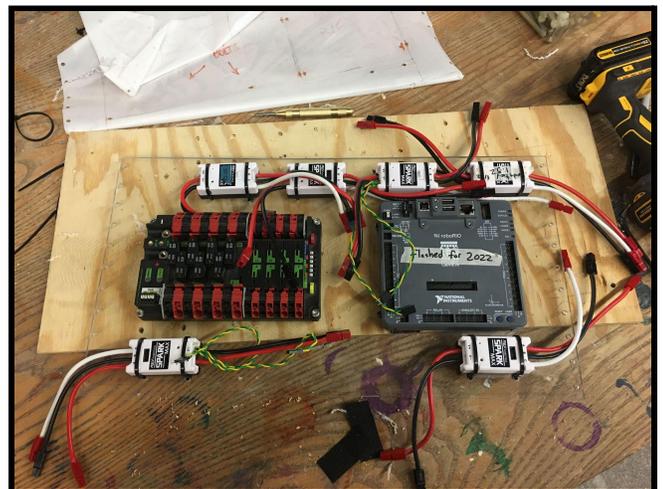
Welcome to our seventh weekly BONDS Status Report of the 2022 season, where we summarize what our team has achieved in each week of our build season! In this entry, you'll see what BONDS Robotics accomplished in the seventh week of the build season for the 2022 FRC competition, Rapid React!

Build, Electrical, and Programming Team

This week, we continued our assembly of the robot, which is getting closer and closer to being completed! On Monday, February 21st, we focused on attaching our climber pieces onto the robot. One of these pieces was the static hooks, the set of hooks that will secure us to the first rung as we extend our climber arms to the next rung. On Tuesday, February 22nd, we updated our Computer Aided Design (CAD) files, sanded down metal churros that are for making the robot's frame, and attached side panels to the robot. On Thursday, February 24th, we updated the CAD file of our robot's battery holder with some slight changes, then started assembling it. We also worked on putting together the climber structure, drilling new holes into our metal churros.

The programming and electrical teams were also hard at work this week! On Monday, the electrical team mounted electrical components to the electrical board, drilled holes into the board, and used zip ties to keep the components in place. Meanwhile, on Tuesday, the programming team continued coding and set up our motor IDs for the robot.

On Saturday, February 26th, we had an extended meeting from noon to six to continue our progress in assembling the robot. During the meeting though, we noticed we were encountering some difficulties. One of these was with our robot's battery pack, which connects to the rest of our electrical components to power the entire robot. During the practice, while we were finishing



assembling the box used to store our battery pack on the robot, we noticed that the battery could only slide into the box vertically due to the placement of our bolts. Since we only have so much time in-between matches during the competition to work on our robot, we must be able to easily replace our battery pack by either sliding it in vertically or horizontally. Therefore, we made plans to change the placement of the bolts so we can properly access our robot's battery box.



This week, we also came across an obstacle that could impact another important aspect of competitions, one that occurs before we even play on the field! We noticed that the gears that power the motors for our climber arms were placed too close to the perimeter of our robot's chassis and had nothing covering it on the outside. Before any robot can drive on the competition field, it must go through a robot inspection that ensures parts of the robot are sufficiently designed to be robust and safely protected. If we cannot pass the inspection, our robot is barred from



competing. Luckily, all the rules for creating a safe robot are listed in this season's game manual, which we received access to at the start of the season. During the week, we made plans to change the gear size to not be as close to the robot's outside perimeter. Going forward, we will also want to double-check the manual for robot requirements. By doing so, we can create and assemble parts with confidence, knowing that our final robot will meet the safety standards for the competition.

There's one fundamental thing that we know will help us solve all of these challenges: communication! This year, we've done an excellent job of reporting any issues we are having with designing, assembling, and manufacturing the robot as soon as we come across them. Additionally, with the help of our mentors, we've been able to solve these issues quickly. Whatever obstacles come our way, we know we'll be able to overcome them by communicating with each other!

Business Team

The business team was busy this week organizing our finances in preparation for writing the Business Plan, which is a document we present at competitions that details how our team runs financially. Not only is the Business Plan helpful for us to analyze how our team functions, but it is also eligible at competitions for the prestigious

Entrepreneurship Award! On Saturday, we scanned our team's financial register, which records the team's expenses and income, for numbers we can showcase in our Business Plan. With the help of one of our mentors, we also created an Operating Budget that can track the spending of different parts of our team.

Marketing Team

The marketing team spent Thursday and Saturday's practices organizing all of the binder folders from our previous seasons and preparing a few of them to be ready for our upcoming competition! We removed the papers inside all of them and put them into envelopes. Meanwhile, we placed many of the previous year's binder folders into a convenient box, which we stored in our team cabinet with the envelopes. By reusing some of our old binders, we avoid unnecessary costs of purchasing new ones, which can easily add up! This week, we also continued making plans for what specific material we want to be included in our pit binders, as well as finalizing our T-shirt design with graphics and logos from our generous sponsors!



We want to give a big thank you to all of our sponsors this year! None of this would be possible without you, as your support allows us to continue learning STEM values and to Bring Opportunities Near Dayton Students.



To see more of our progress throughout the season, please follow us on Instagram, Twitter, YouTube, and our official website! Stay tuned!



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