

January 14, 2017

PLUGGED IN

Good afternoon everyone, and welcome to our very first entry of our newsletter **Plugged In**. This will be a recap on what the CAT5 Cybercanes has accomplished so far released on a weekly basis. We are a FIRST robotics team consisting of 9th -12th grade students from Heritage High School. Ever since we first started in 2015, the team competed in both FTC and FRC events; traveled to multiple cities; grown in size since the 2015-16 school years; and accumulated various awards. During this eventful week, we had a total of four meetings.



On January 7th, we originally planned to go to the 2017 FRC (FIRST Robotics Competition) local kickoff at the Jefferson Lab. However, due to the blizzard that hit during the weekend, the event was cancelled; therefore, we watched the reveal live on Twitch. Afterwards, we joined together in a voice chat on Discord to discuss the contents of the reveal, like the layout of the field and the rules of the game. As the meeting came to an end, we decided that the next meeting on the following Tuesday will be dedicated to potential strategies that we can implement on the robot.

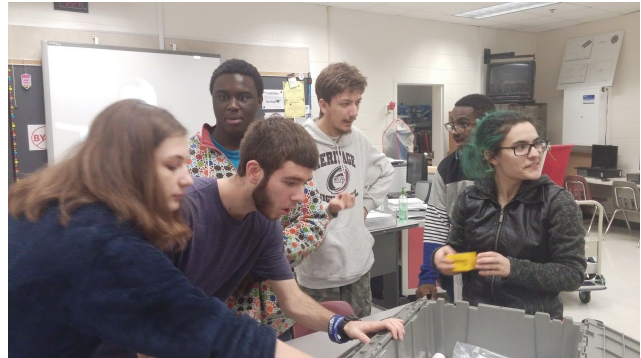
During our second virtual meeting on January 10th in Discord, we began with deciding on the plan for the robot doing during the competition. We broached the subjects of the robot's actions during autonomous, the first 15-second period where the robot will act independently, and tele-op, the last 2 minutes and 15 seconds of the match where drivers operate the robot through manual controls. We went through the possible game plans we could come up with, like focusing on shooting whiffle balls into the 'boiler' to score points or loading gears onto the airships located on our side of the field. When the meeting concluded, the team decided on a strategy and came up with ideas for certain mechanisms on the robot.

When the snow and ice finally cleared, we stepped foot once again in school grounds on January 12th. For the meeting on that day, we conferred with the members absent during both Discord meetings about the decided actions and design of the robot. Also, on that day, we received the Kit of Parts that was issued to every FRC team. As the meeting went forward, most of the members divided into their respective working groups and began

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The team opening the Kit of Parts for the first time!



elaborating the design and game plan, while others took inventory of the items in the Kit to assure that we received everything.

Finally, at the time of the meeting on January 14th, we started the meeting divided into singular teams. The programming team was hard at work finding ways to redesign the FRC program we used last year and getting layout of the field to discover wanted measurements needed to help program actions during the autonomous period. Both the mechanical and electrical team worked together to design the mechanism that will be used to convey the fuel (whiffle balls) and gear to their proper destination on the field. Additionally, the communications



Mentors and members of the team working on a mechanism for the robot.

team proceeded to document the meeting, complete the first challenge of the Innovation Challenge sponsored by FedEx, and type up the newsletter you are currently reading.

Correspondent: Jalen Waye