

~ WEEK2 ~

Prototype bot: elevator work, batteries!

- BUILD -

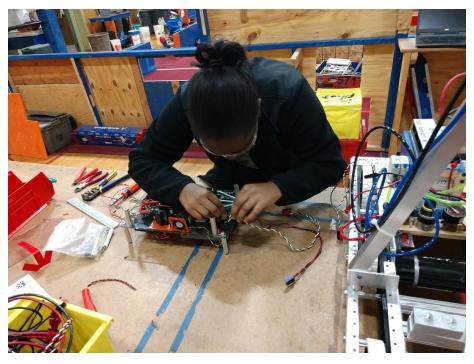


Before this week, the cube grabber was mounted directly onto the elevating 80-20, so we only managed to achieve half our desired height. This week we added a second pulley system onto the second 80-20 in order to reach the 6-7 foot height we need for the highest scale position. This could potentially also allow us to reach the 7 foot climb bar. We also were able to save time this season by recycling a past years eletropneumaquarium. This allowed the team to program and potentially drive the practice bot faster than in past years.

We also assembled our robots batteries for most some of the day by adding connectors and leads by torch soldering. Also added pneumatics to the eletropneum aquarium for the practice bot to run the arm on the front of the bot.







- PROGRAMMING -



As we build our bot, we've been keeping up with the programming of it! This week we put the robot code onto the prototype bot, and did a lot of debugging! This year we're learning to use RobotBuilder, a graphical interface that sets up the structure for our code. It also allows us to have our SmartDashboard, which keeps track of important editable properties.

In the debugging process, we semi-restarted the code from a parent robot class "Catherine" to "Cameron." Debatably related, the code now works ;-)

We also designed and 3d printed a limit switch mount that will attach to our elevator system that reaches up to the bar for end game ranking points.

-PLAY FIELD -



This week our mock field is getting closer to the actual field by adding the scale and the fence around the switch. Also a ramp was added that allows the robot to get to the exchange where the human player gives or reserves power cubes. The tower for the scale and final game element



were also constructed. We almost have an entire playfield

The mentors finished building the climbing bar on the scale to practice climbing for the end game strategy with the elevator system were building on the practice bot.

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-IMAGERY-

So we sent our t-shirt design to the graphic designer Terese Newman. She will make our design in to a design which can go from paper sketches to computer graphics to be able to go on our shirts for this year.

We have narrowed down the theme to he robot....keeping 8 bit, imagination and imagery all in mind...but we will build on this.

This years book is taking shape and almost completed. We may know our ABCs

-W E B-

This week we updated the our <u>website</u> to have the recent links that go with this years game, and soon we'll add new mentors and students to the log of the team paragon members

-CONGRATULATIONS TO BLAZING SPIRITS-





Our FTC team Blazing Spirits had a competition and came in 5th place at the Danbury competition called "Gathering of the Goats" at Danbury Middle school. Their next competition with be February 3rd at the American School for the Deaf in West Hartford.

-Time to level up with FIRST Power Up! -

See our kickoff update for more game + planning info

2018 FIRST POWER UP GAME ANIMATION

If you haven't already, don't forget to check out this year's game animation!



https://youtu.be/HZbdwYiCY74

Tell your friends that might be interested about Paragon, we'd love to have new students and mentors too. No experience necessary, just a ready attitude to learn and get excited!

Contact us at teamparagon571@att.net

During the build season, we meet:

Mondays, Tuesdays, Wednesdays 6-9 Saturday 10-5 Sunday 1-6

UPCOMING EVENTS

-Suffield Shakedown

February 17, 2018 : Our team will hopefully be taking part in a practice scrimmage with some other teams in the state to practice.

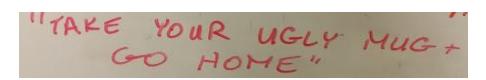
-Waterbury Competition (Wilby High School)

March 9th-11th 2018: First Competition!!!

-Hartford Competition (Hartford High)

April 6th-8th: Second Competition!!!

"Quotes of the Day"





QUOTE OF THE DAY

FIRST® Robotics Competition Game

FIRST* POWER UP, M the 2018 FIRST* Robotics Competition game, finds our teams trapped in an 8bit video game! Teams use power cubes to defeat the boss.

Each three-team alliance has three ways to help defeat the boss:

- Owning the scale or their switch.
 Ownership occurs when the scale or alliance's switch is tipped in their favor.

 Robots collect and deliver power cubes to gain ownership.
- Playing power ups. Alliances exchange power cubes for power ups. Power ups provide a timed advantage during the match. There are three power ups that can be played: Force, Boost, and Levitate.
- Climbing the scale tower. Robots work together to climb the scale tower to face the boss.

Autonomous Period:

Robots operate independently following preprogrammed instructions for the first fifteen seconds of the match.

Alliances score points by:

- · Reaching their own autonomous line
- Gaining ownership of the scale or their switch

Teleoperated Period:

Operators take control for the final two minutes and fifteen seconds of the match.

Alliances continue to score points by:

- Gaining ownership of the scale or their switch
- · Delivering power cubes to the alliance's vault
- · Using power ups for a timed advantage
- Parking on the scale platform or climbing the scale to face the boss

The alliance with the highest score at the end of the match defeats the boss and wins.







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