

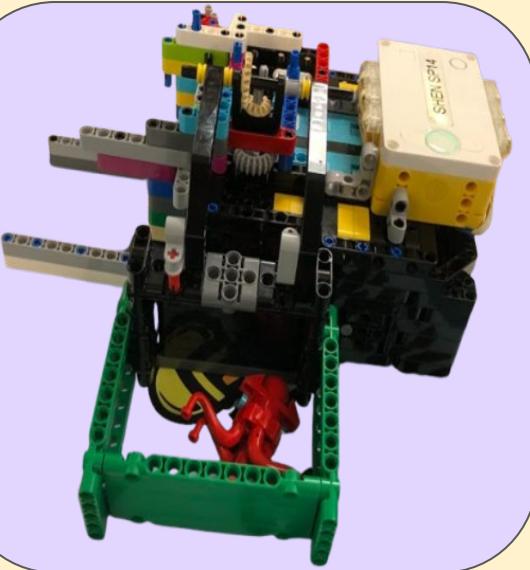
# Discovery - What we learned.

## Robot Design:

- How to code in python
- How to build attachments, passive and motorized
- That batteries age differently and not interchangeable

## Innovation:

- We learned about a non-profit organization called SkyTruth that uses satellite data to track oil pollution in the sea. Mostly waste oil purposefully dumped by huge ships and other illegal oil company behavior!
- We learned that only 5% of the ocean has been discovered. This helped us decide to focus on an AUV that collects data for areas of the ocean that have not been explored.



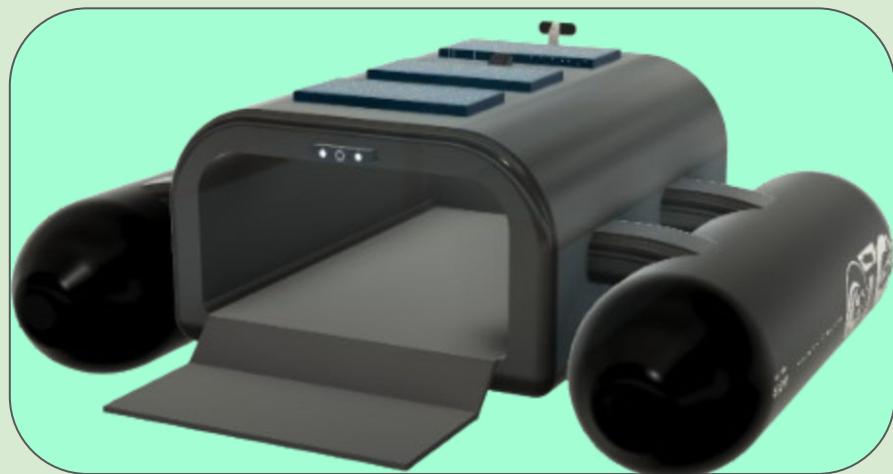
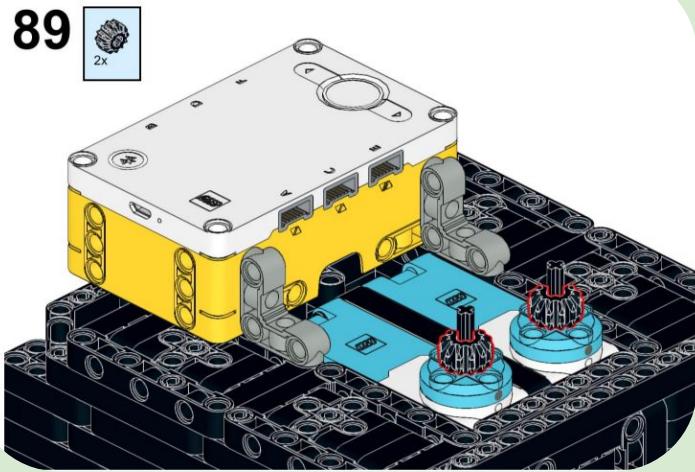
# **Innovation - What we did that is unique or creative.**

## **Robot Design:**

- We made passive and motorized attachments ( Waterslide and Gonzo)
- A team member reversed engineered last bot, created instructions using Bricklink for new members to understand its design
- A new way to monitor the battery levels for optimal performance

## **Innovation:**

- We've created a form to gather information from individuals to save
- We created a 3d printed version of the OTC using a model created in Fusion



# **Impact : What we do outside the team to help others?**

## **Robot Design:**

- Helped the club teams (Snake Bytes and the Roboteers) prepare for a rumble on 11/16
- We hosted the First Explore Expo for 33 elementary teams in Shen and while we were there we taught kids how to code in block.
- Teaching Shen students in 6th grade tech how to block code

## **Innovation:**

- Used the robot rumble to show people our solution and gather feedback. We used a poster board and asked people to do our survey to collect data and information.
- We shared our idea with other FLL teams and with Experts
- We gave other FLL teams feedback on their innovation project



# **Teamwork - How we work together?**

## **Robot Design:**

- Each of the newer team members broke apart a bot and rebuilt it so all of them understand how the bot(s) worked
- Helped each other code
- Worked in teams on missions

## **Innovation:**

- We worked in small groups to research various ideas
- We worked on our skit in small groups



# Inclusion - How we make sure that everyone is included.

## **General:**

- Everyone had a leadership role
- Every meeting started with an agenda so would everyone had knowledge of what our progress on tasks were.
- Every meeting we switched roles and did half of innovation and half of robot game.

## **Robot Design:**

- Voted on missions.
- Everyone was assigned a mission and attachments

## **Innovation:**

- Everyone participated in brainstorming.
- We voted after down selecting to a few ideas.



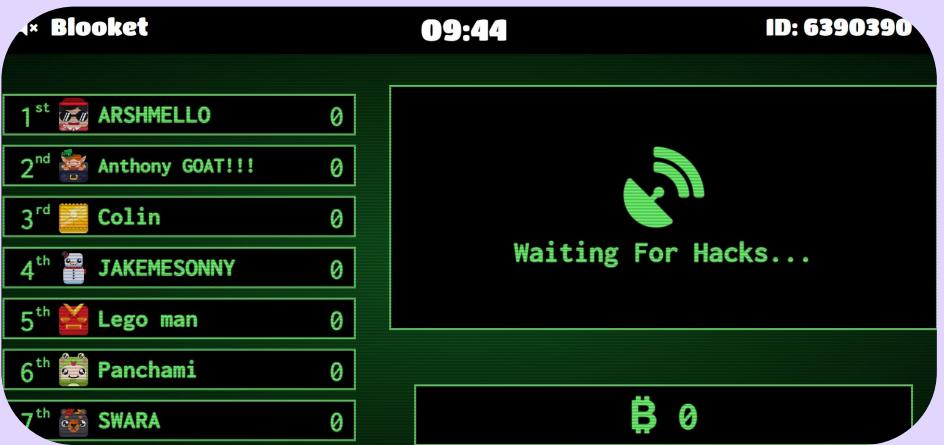
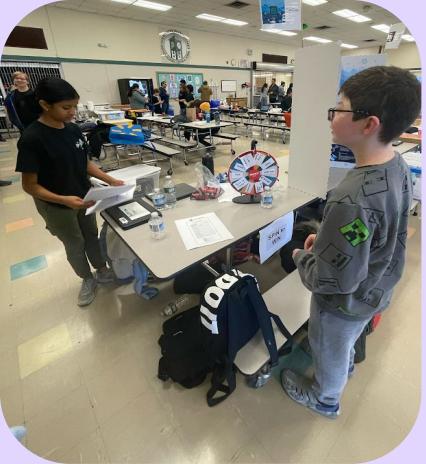
# Fun - What we do for fun.

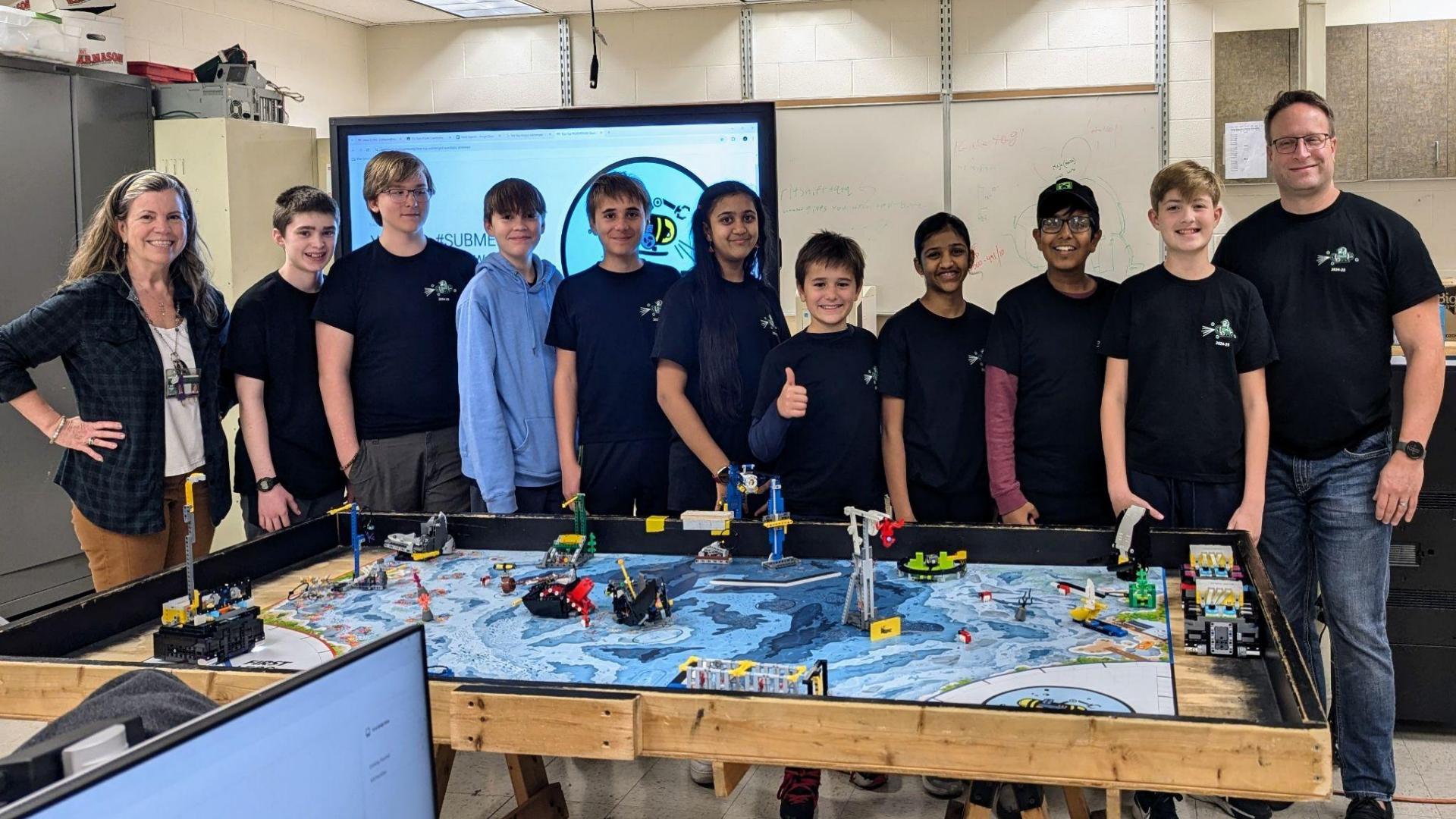
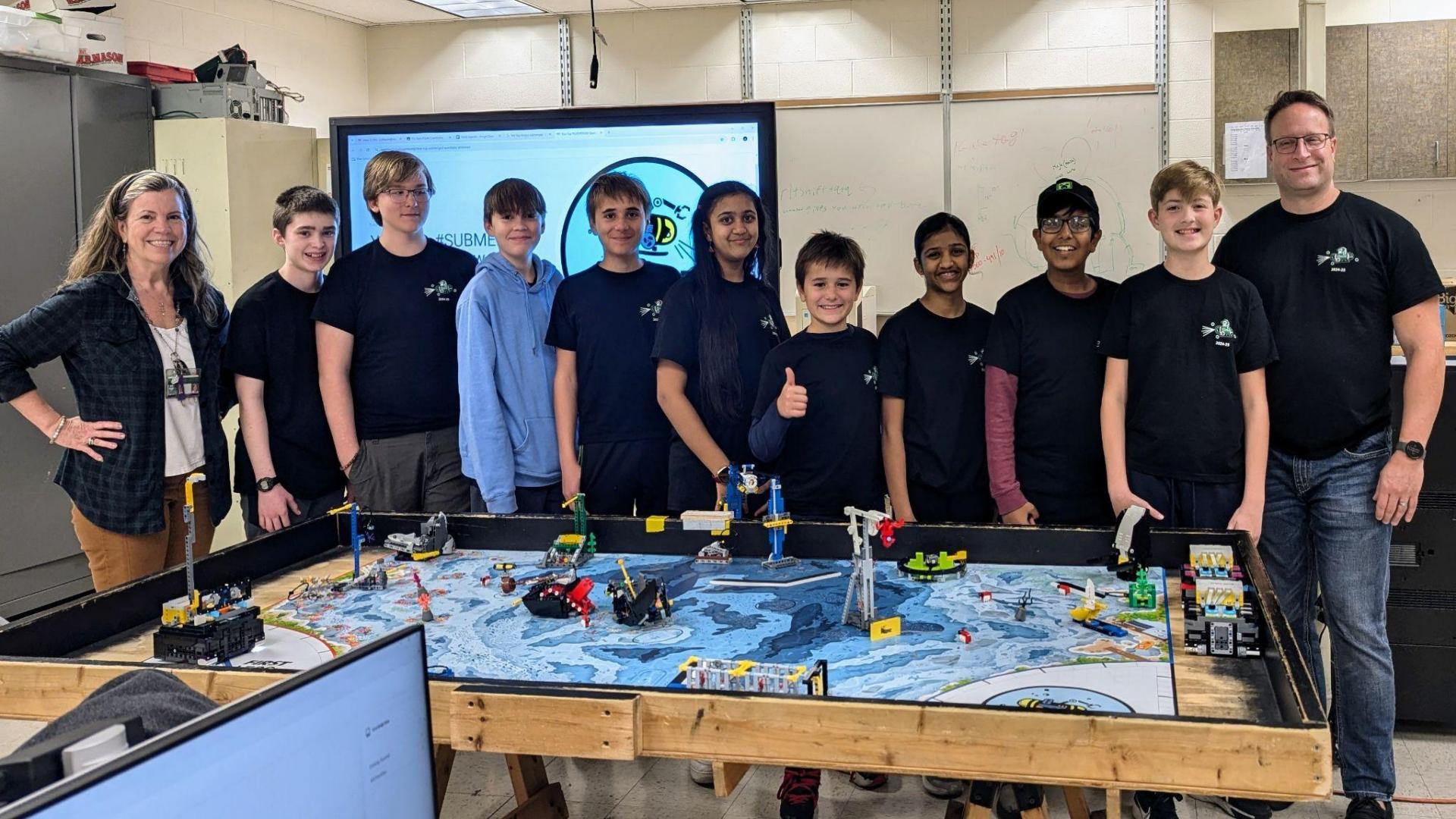
## **General:**

- Creating funny memes and things that represent us as a team
- Designed characters for each of our team members (cyrobots)

## **Robot Design and Innovation**

- Games such as Jeopardy, Blooket, and Gimkit to learn about robot game, pollution, and the ocean
- Running the spinner wheel at the Rumble, Qualifier, and the Explore Expo
- Asking people to participate in our survey for innovation and we had tons of fun showing them and asking them
- We went to the VIA Aquarium and helped us get a idea of how we can maybe change our solution
- The team created clever jig for every time the Kriller attachment is mentioned.







# Impact: Shenendehowa FLL Robot Rumble



# Impact: FIRST Explore Expo January 25, 2025



