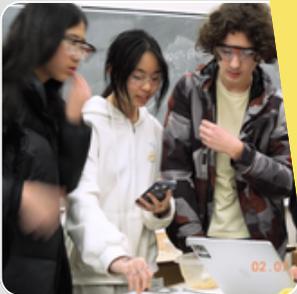
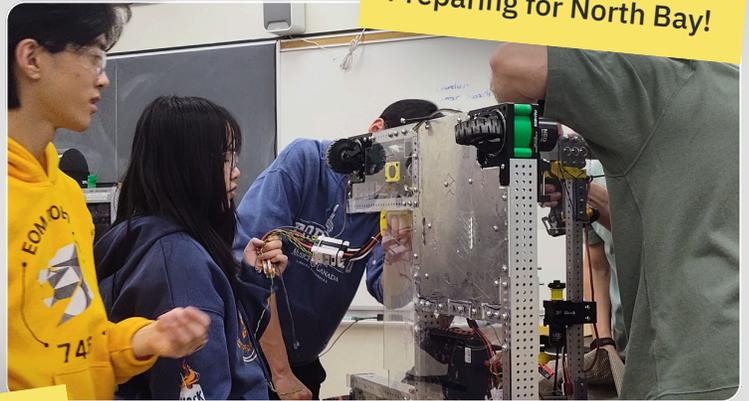
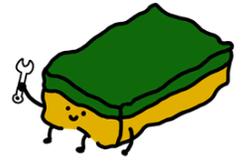


# SPONGEBOTICS UPDATE

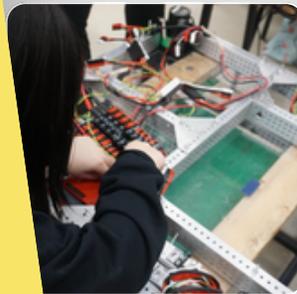
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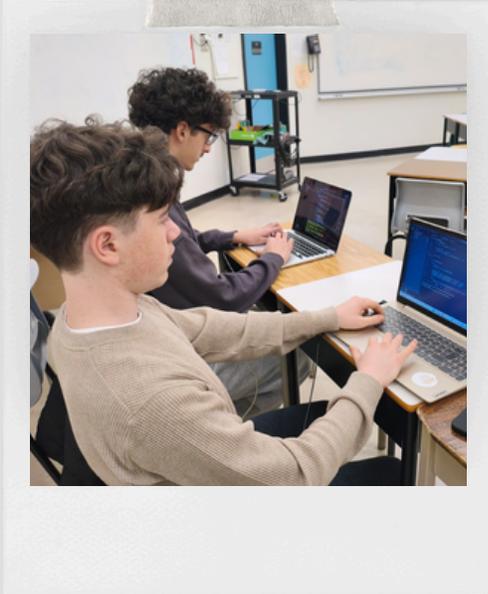


**Contents**

- Strategy
- Hardware
- Controls
- Business+



# Strategy



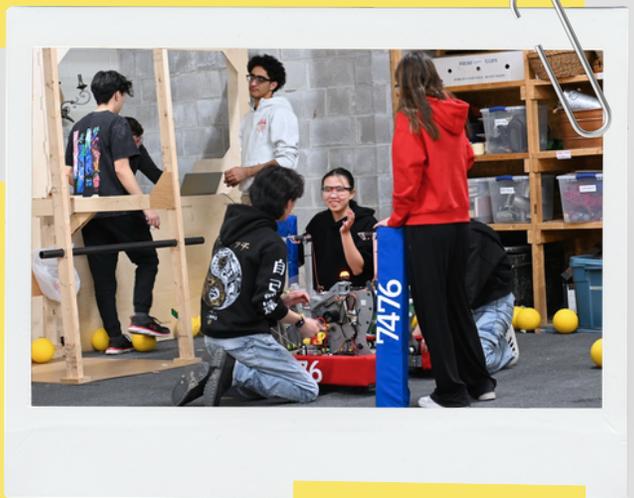
## Scouting System

We have completed the coding and organization of the scouting system, which includes a database and an app. This will allow us to track game points, robot functions, pit-scout, etc., which will help us determine our match strategies, possible alliances, and predict game outcomes. We are now continuing to work on the competition scouting schedule.



## Drive Practice

The drive team has been practicing going over bumps at different angles and speeds, as well as drills with cones to ensure smooth turns. We will carry on with running through all components of the game such as intake, launching, and climbing to increase our speed.



[Click for example](#)

# Hardware

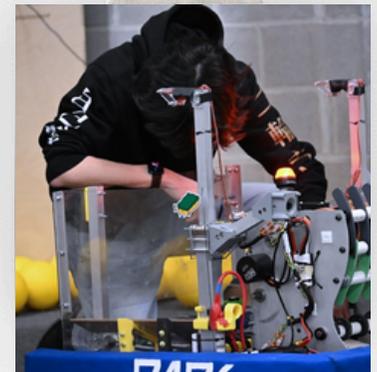
## Climber

We have decided to replace the climber's power system. We originally planned to use a string system that would connect both arms, allowing both to be powered with only one motor. However, we ultimately decided to give each arm its own motor which would increase the power and reliability of the climber.

## Hopper/Indexer

We have refined some issues involving the hopper and indexer before the competition.

- Replaced wood panels with Lexan for easy viewing inside the robot and increased durability due to its flexibility
- Added a "car hood" opening to permit easier access to electrical components below the hopper to replace batteries



## Intake

We have finished the final assembly and modified the rollers to improve compression fuel to avoid any stalling motors. We have lengthened and lowered the intake ramp to improve intaking and indexing from the ground.

# Controls

## General

We have tuned autonomous paths using Pathplanner and pathfinding commands. We used our AprilTag vision technology to the fullest extent, to coordinate the robot's orientation. Our team took a divide-and-conquer style approach, splitting into various subteams to program different subsystems and commands such as the launcher and the climber.



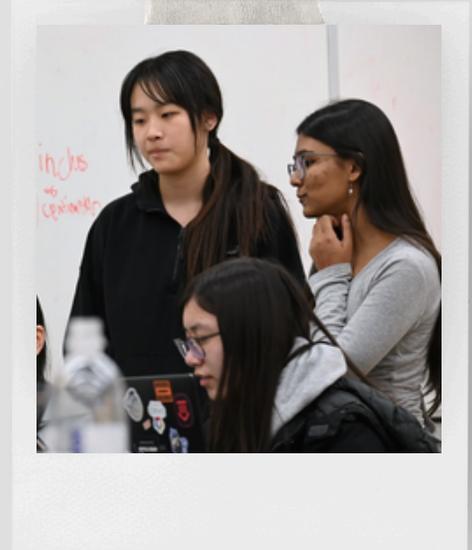
## Drive Testing

We have implemented auto routines based on auto strategies made by the strategy team. Controls has also modified coordinates of an online field simulation and physically changed the robot's camera location to allow it to travel under the trench.

# Business +

## Awards

We have finished and submitted the Impact essay and video and transitioned to preparing for the machine and the team attribute awards. These are awarded at the competition itself. We have listed and researched the awards that we are eligible for in preparation for the North Bay competition.



Impact video @  
Spongebotics on Youtube



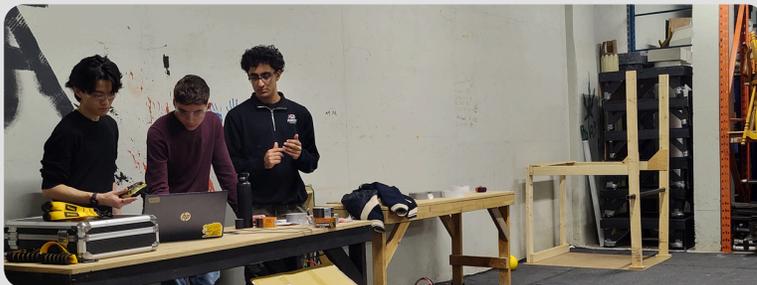
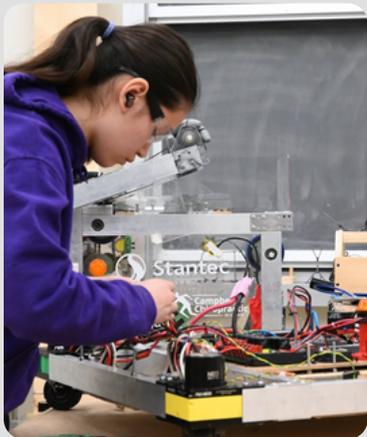
## Competition Preparation

- Arranged the business and spirit table in the pits with the hardware sub team
- Created wooden CNC engravings for sponsors in the pit
- Created spirit buttons and created new banners for our rebranding



## Social Media

We have been consistently posting weekly on Instagram and Facebook. We plan on vlogging and posting updates on our Instagram while at competition. Watch out for them!



Thank you to our generous sponsors!

