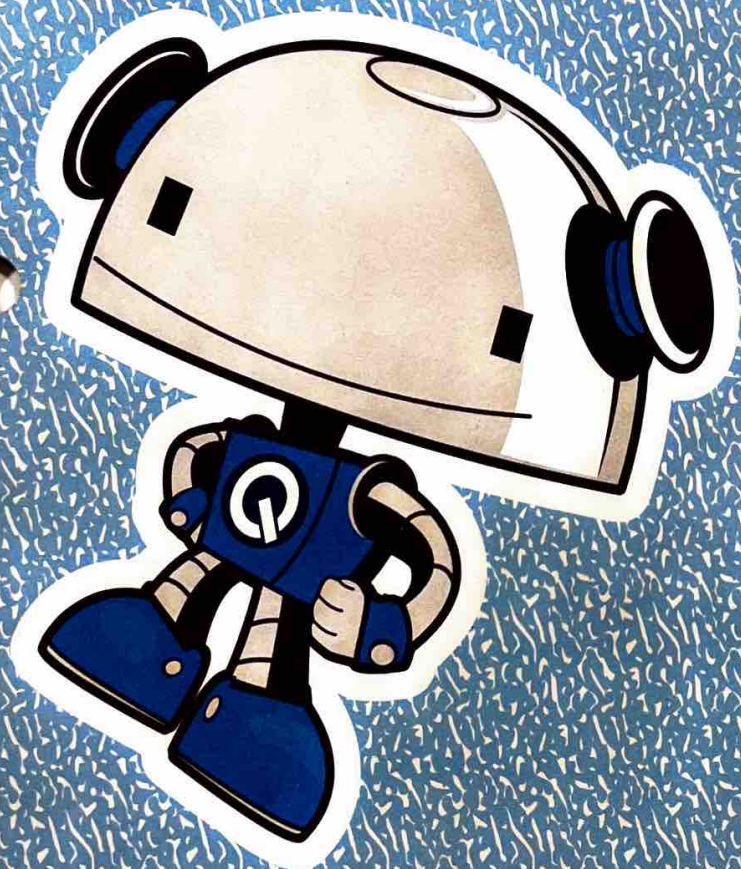


Kasey
Neelabh
Dean
Arthur
Adam
Evelyn



team number:

team name:

school:

start date:

end date:

Team C
The Fruit Punchers

 **GEARING** 
UP FOR **SUCCESS**

My Projects

page #

project name

date

1.	Prototyping Puncher	8/26/22
2.	Intake Ideas	9/2/22
3.	Intake Final idea. Progress on Puncher	9/9/22
4.	Progress on puncher	10/7/22
5.	Funnel and connector	10/14/22
6.	Purple dispenser	10/21/22
7.	In tak problems	10/28/22
8.	Big improvements	11/4/22
9.		11/10/22
10.		11/10/22
11.		11/11/22
12.		
13.		
14.		
15.		
16.		

Brainstorming

Invite a student to lead the session, and help them stay on task by repeating the title of the sessions when they stray from the objective. Appoint a student to record all of the information on a whiteboard, large paper on the wall, on the computer, or directly into this engineering notebook. Begin with **What Not How**: Let students come up with **what** they want the robot to do, **not how** they plan to do it. The design process will follow after the strategy has been developed and agreed upon.

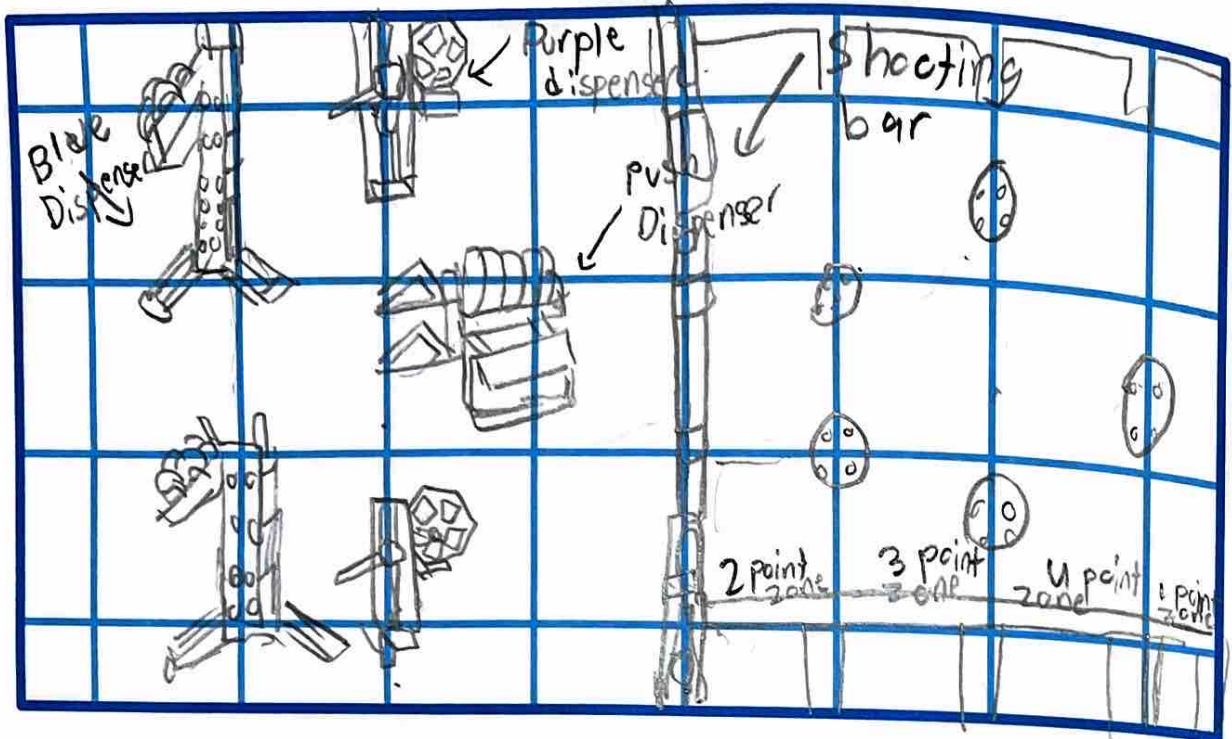
We want to have a puncher system for the disks. We also want to have a mechanism that falls the loose part of the blue dispenser down. We want to be able to utilize all of the dispensers. We need to keep the robot small.

Game Strategy

We should shoot all of the disks into the Y point zone. We will get disks from the blue dispenser first as well. Due to the amount of time on the clock, we will start on the bottom left corner. Then within seconds, we will get disks from the purple dispenser.

The first driver will be collecting the disks. The second one will be shooting it. The 40 second mark is the deadline.

Field Diagram


☐ Think

☐ Do

☐ Test

Be. Prototyping Puncher-

Because it's a very important system, we're starting with prototyping the puncher.

Dean and Arthur anticipate that it will take them 2 hours to finish it up. We are basing our design off of various videos and photos. So far, they've nearly finished up all of its gear components.

name Neelabh Garg

date August 26, 2022

We are coming up with ideas for the intakes, for we have come up with 2 ideas for intakes. Arthur finished the prototype for the punch bot. We found a con. about the prototype, the punch mechanism is too high off the ground.

name Adam

date September 2nd, 2022

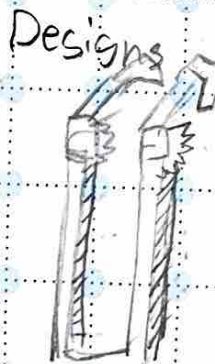
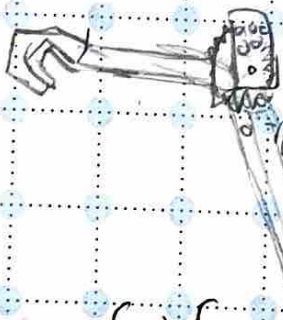
Progress on Puncher-

Arthur and Kelsey finished building the gear aspects of it. And, they fixed the pole system of the puncher bot. They've also mounted the sides on using plates so now we can test it.

- ☒ Think What could be a versatile solution to our problems
- ☒ Do Discussing different ideas and finding one
- ☒ Test Building our concept.

Final Idea for intake-

We will have peices connected to a big arm that are angular. This will be used to pull down the blue dispenser and scoop up discs on the ground.



So far, Dean and Adam are working on it. I, Neelabh, had built a basic form of it and they are building on it.

name

Neelabh

date

9/9/2022



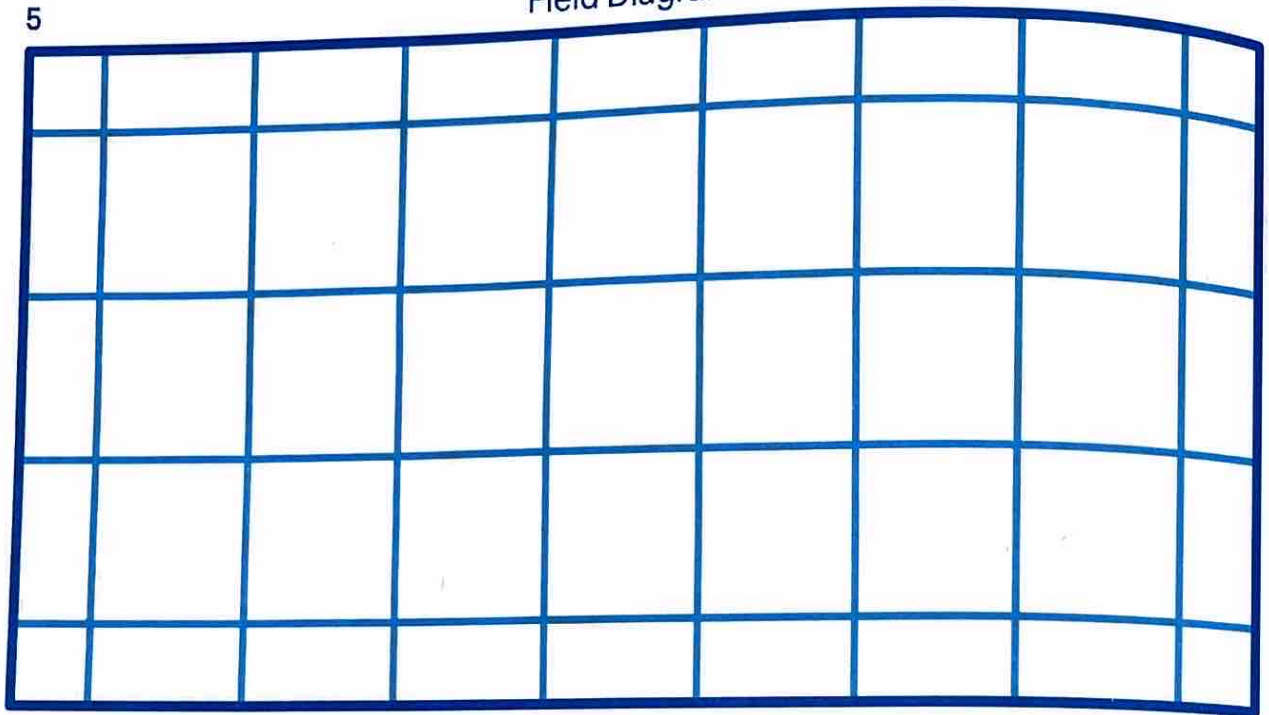
Adam and Evelyn have finished building an intake that is fast and stable. It is a roller Khoush, rather than a scooper.

Dean and I, Neelabh, have been working on a 4 bar lift with a 5:3 ratio, it also has 4 gears so it doesn't work. We've in turn started using a better set of pictures for our reference.

Our puncher broke, so Kelsey and Arthur have been working on reapplying the rubber bands and fixing the beams.

name Neelabh Garg

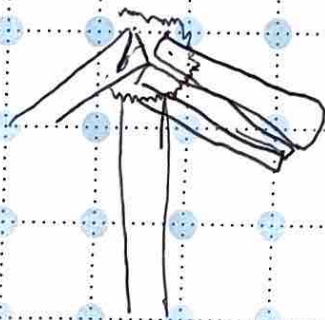
date 10-7-22


☐ Think

☐ Do

☐ Test

Dean and I, Neelabh, were almost done with the U bar lift, but we put it on hold



Kelsey and Arthur are working on the Funnel and the collector. They built the connector but still haven't mounted it yet. They are currently working on the Runner right now

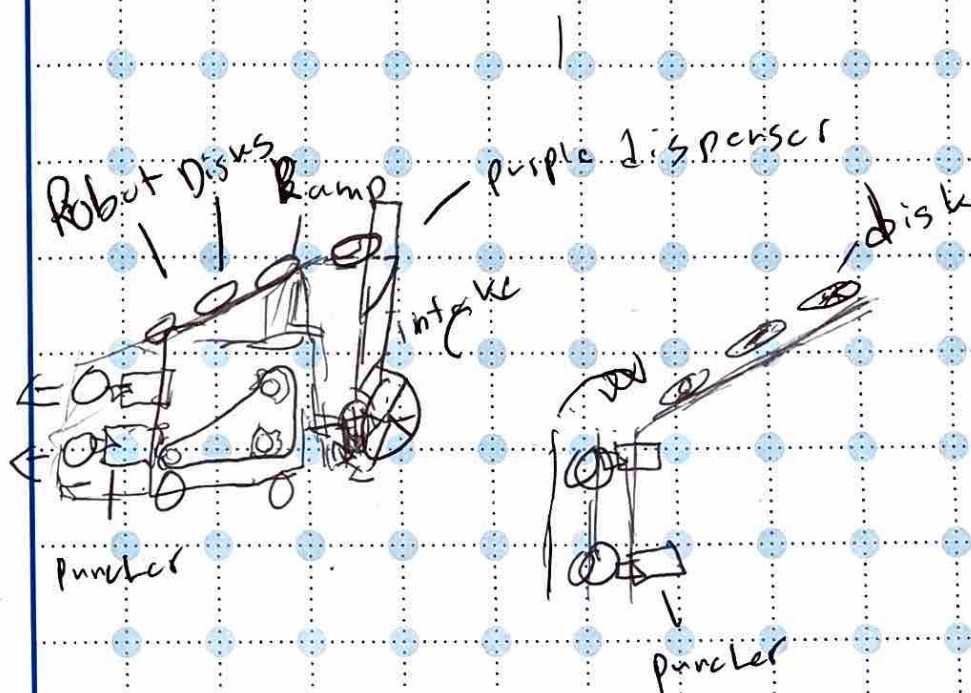
Run - Disk

Funnel -  - puncher

name Neelabh Garg
date 10/14/2022

The word **engineer** means "one who practices ingenuity." There are many people who practice **ingenuity** – the quality of being cleverly inventive or resourceful.

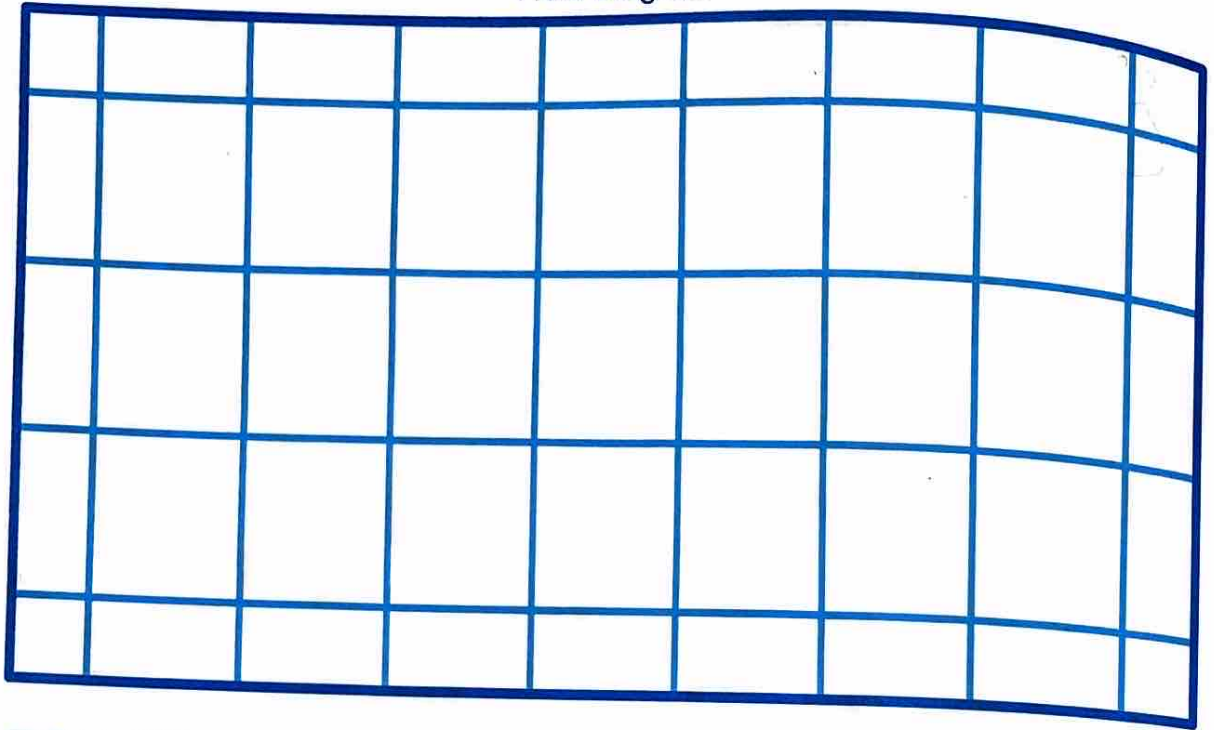
6



The whole team (Neelabh Me, Adam, Evelyn, and Devi) are working on the intake for the purple dispenser. I am also building and mounting a ramp to collect the disks.

name Arthur Muralion

date 10/20/22



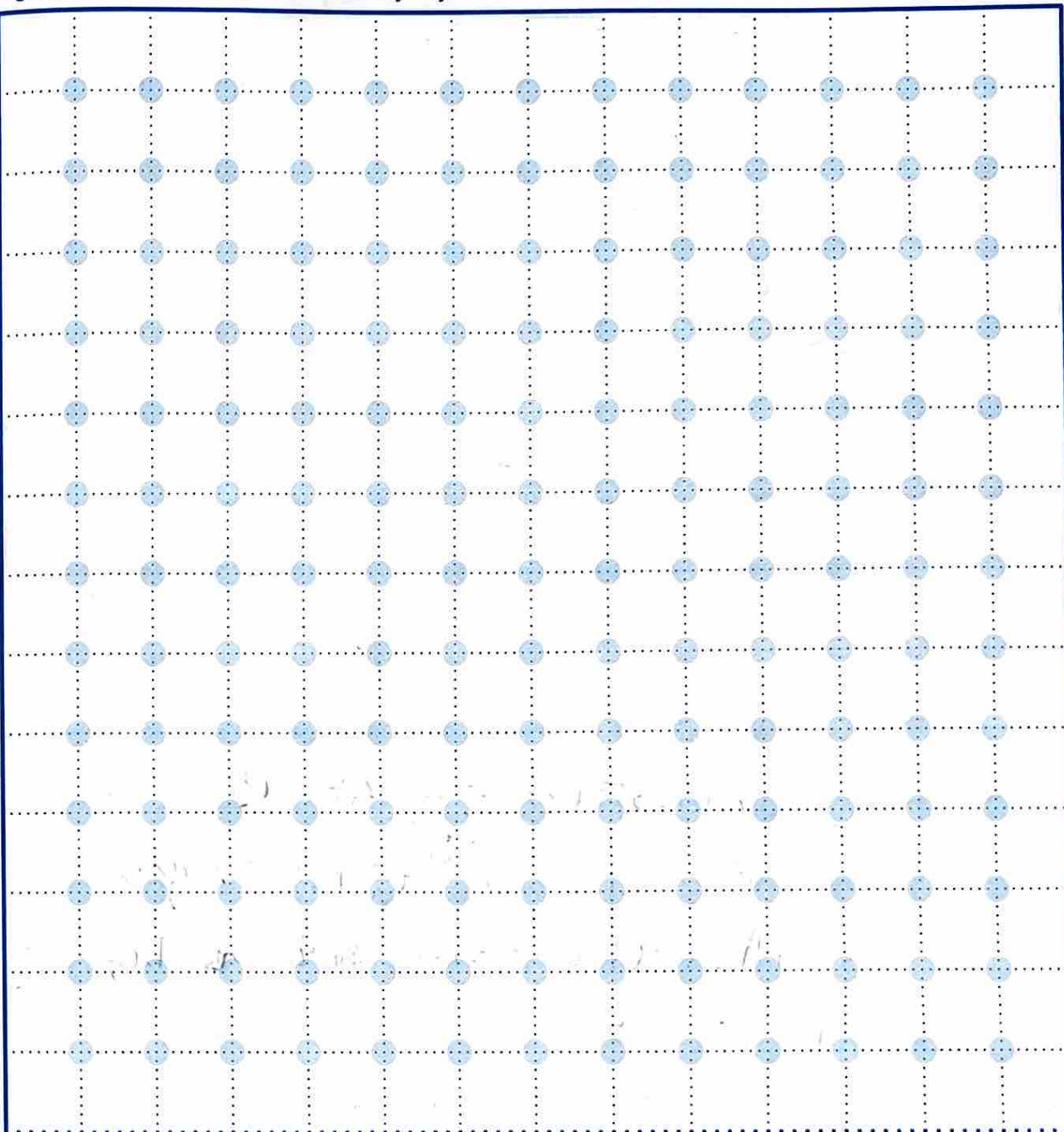
- ☐ Think
- ☐ Do
- ☐ Test

Adam and Evelyn are working on the intake. They saw the gears weren't touching each other. They moved a gear down so it would touch. Neelabhand Arthur started building the container for the disk.

7

name Kelsey Clark

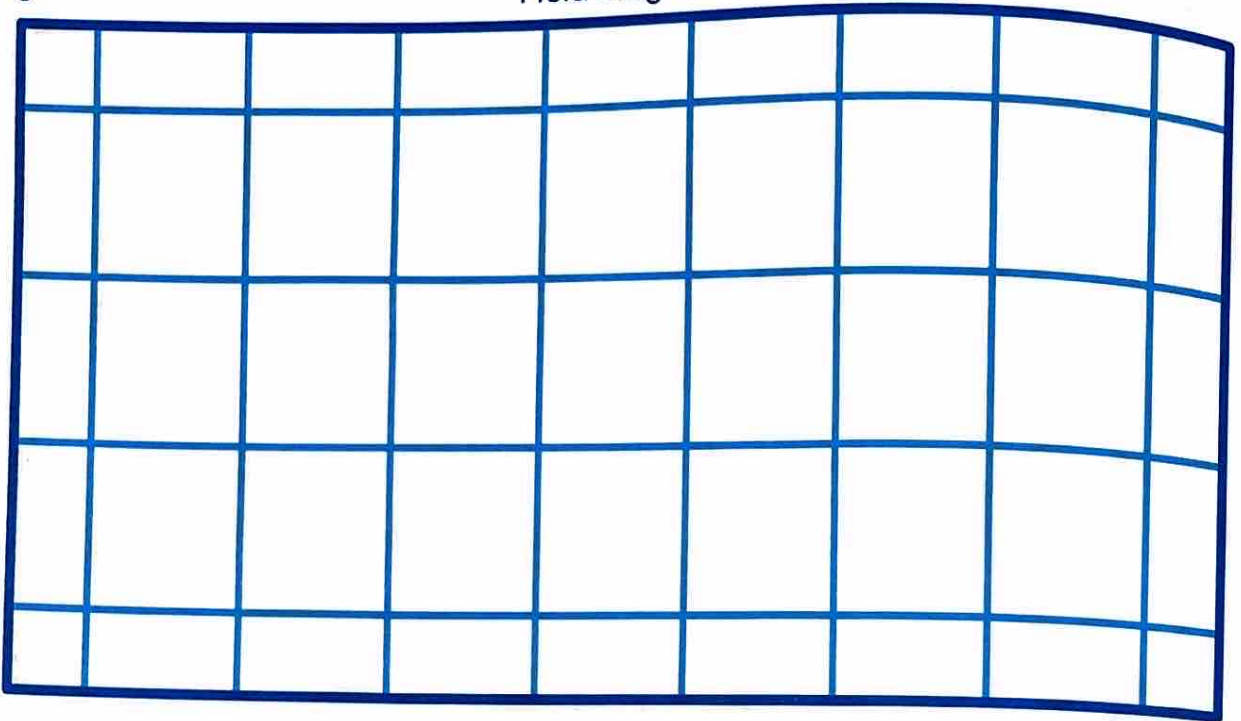
date 10/28/2022



Today we improved on our punching mechanisms, intake, and the collector. We also added the container for the disk. Adam will start the code next week.

6 WEEKS **trifT** COMPETITION

name Evelyn Huang
date 11-4-22


☐ Think

☐ Do

☐ Test

Notes - for future reference

+ When connecting top ramp, make it so that the system that's bringing the disks off starts after we begin the puncher because of the lift.

+ - fix the intake today

(When connecting ramp, make sure the disks aren't falling out of range)

name Neelabh Garg

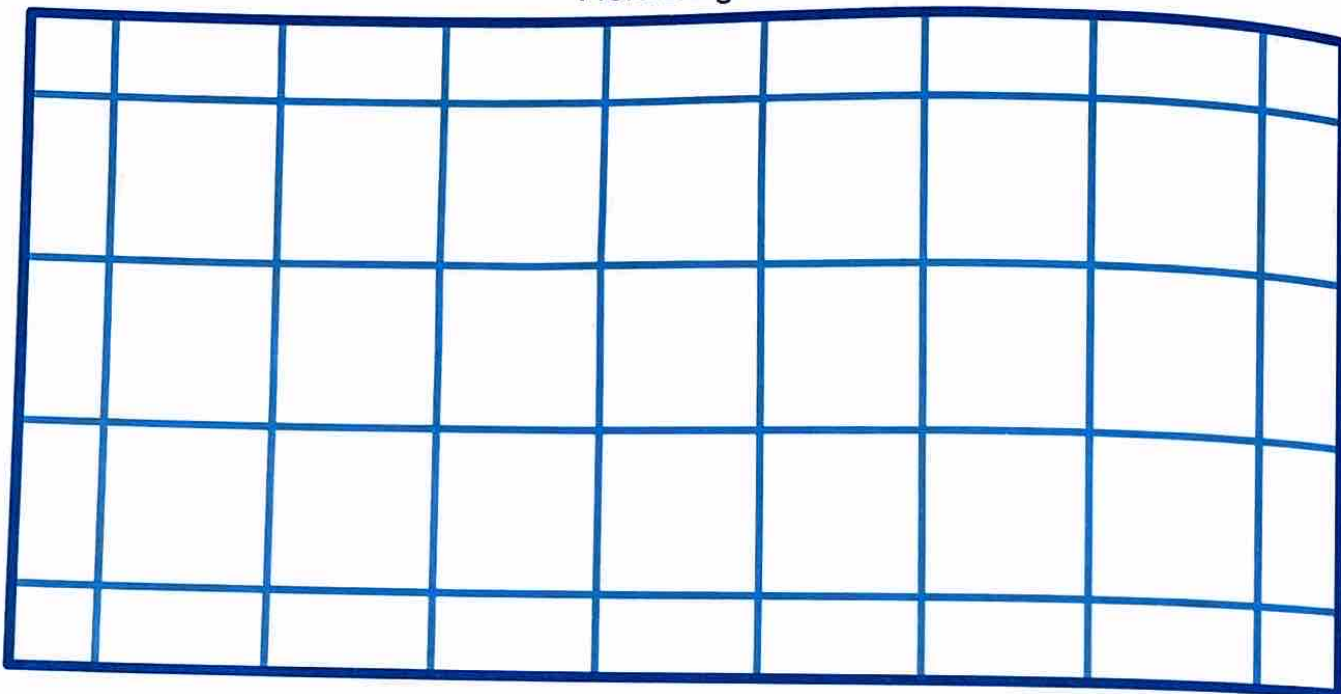
date ~~11-10-22~~ 11-10-22



Adem started the code, Dean and Evelyn started
on the tray for our second version.

name Kelsey Clark

date 11/10/22

☐ Think☐ Do☐ Test

Progress -

Today, Kelsey and Dean were working on the drive base for the version 2 of our robot. We decided to start building another one.

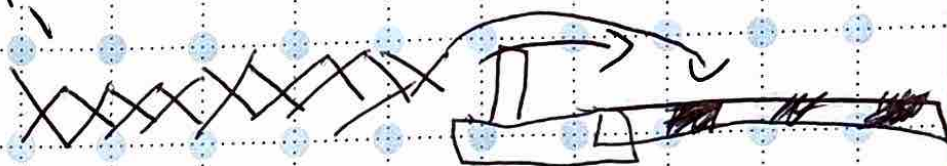
Adam and Evelyn worked on the plate. It is ~~is~~ ^{is} almost done.

And I, Neelabh, started working on the Shooter.

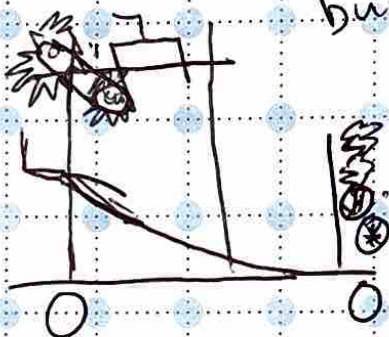
name Neelabh Garg

date 11-11-22

Scissor lift



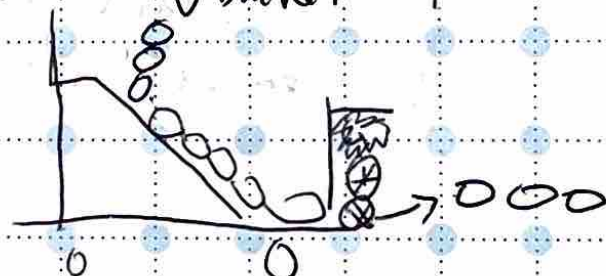
Support system for bucket



disks



Bucket

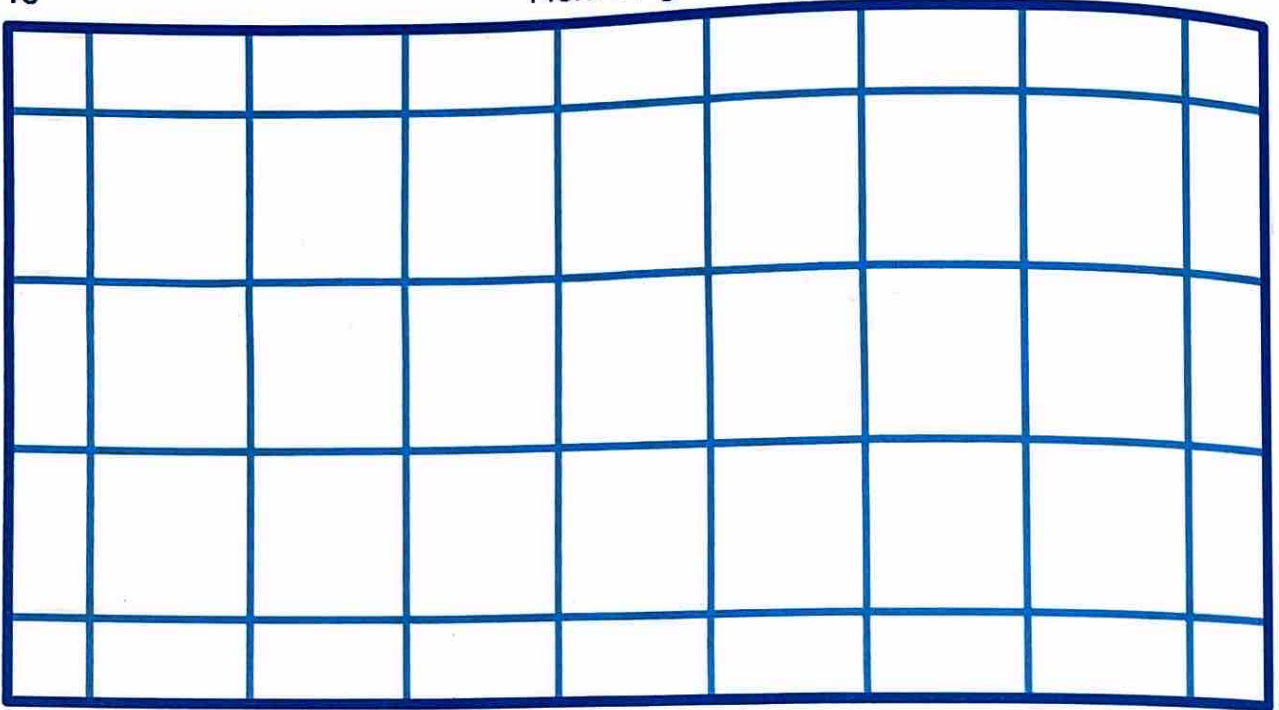


Bucket

Today, Evelyn and Adam worked on attaching the scissor lift. After that they worked on the bucket. Me, Kelsey, and Neelab worked on the support structure for the bucket.

name Arthur Muradian

date 11/29/22


☐ Think

☐ Do

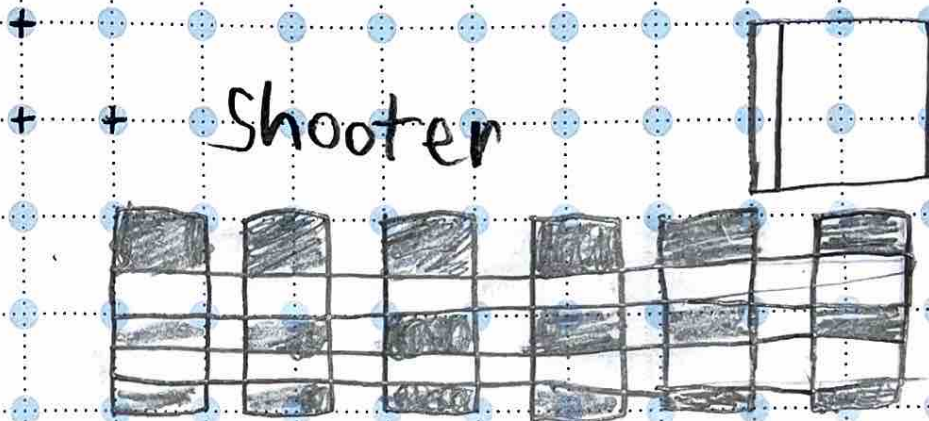
☐ Test

Today everyone worked on attaching the bucket. We also worked on ~~supporting~~ the support ~~and~~ structure for the bucket stronger making

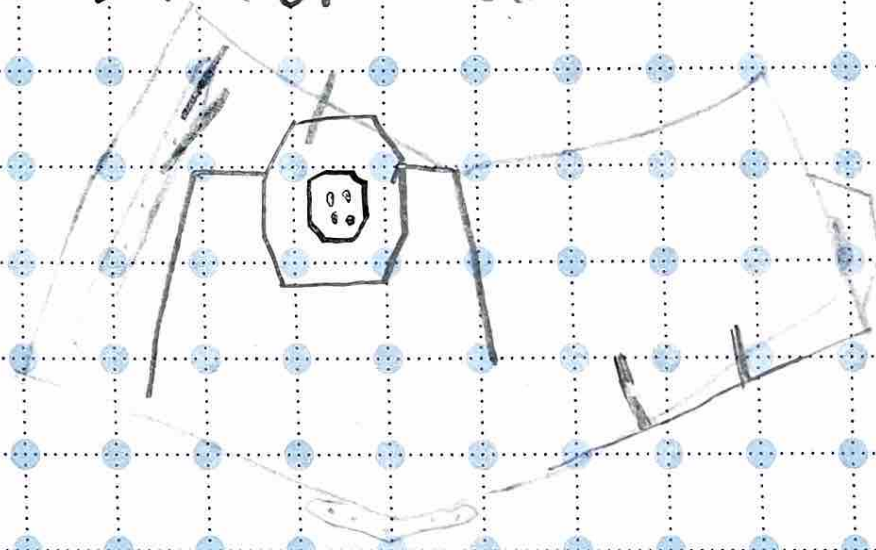
name

Arthur Muradina

date



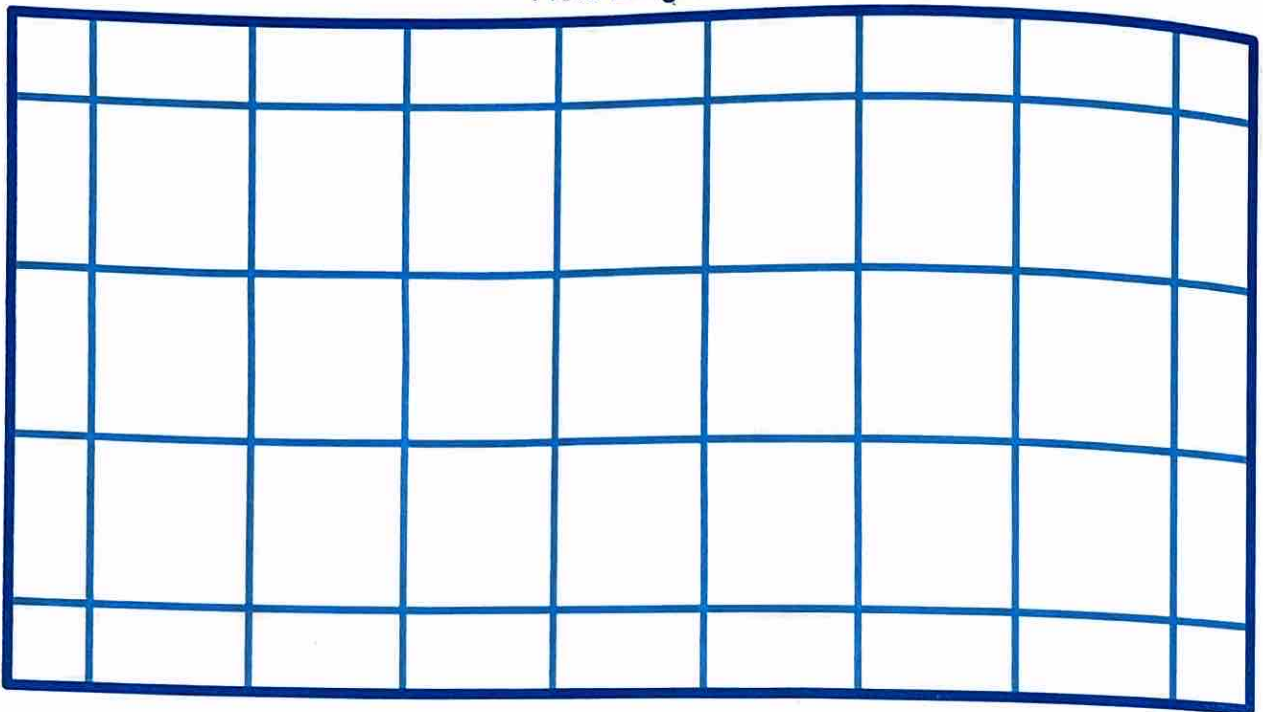
Back of tray



Today, we improved the tray and the shooter.
Me and Arthur worked on the tray, while
Adam and Evelyn worked on the spinner.

name Dean Sanchez

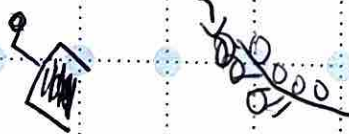
date 12/16/22


☐ Think

☐ Do

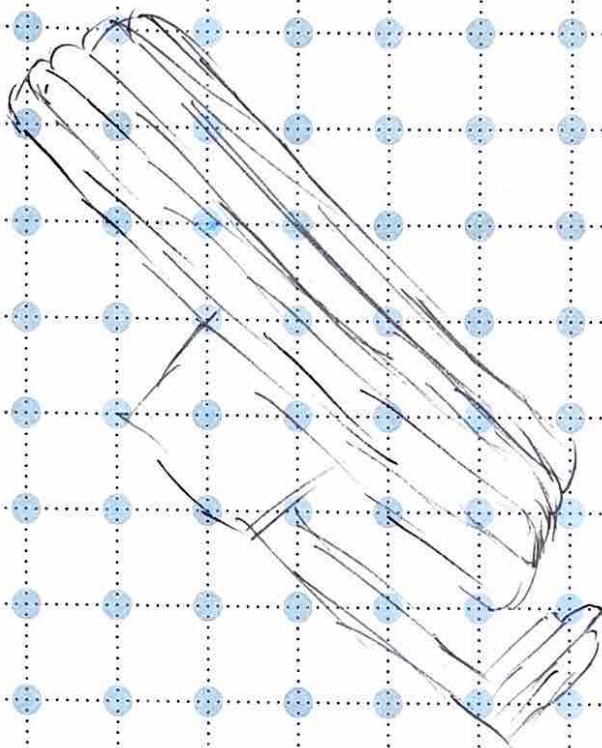
☐ Test

Adam and Evelyn are working on mounting the scissor lift. We added a dam pulley to the tip of the bucket. We also added standoff pins on the edges of the tray so the pucks don't fall out. Adam and Evelyn finished working on the scissor lift and are trying to find a way to mount it.


 name Arthur

 date Jan 13, 2022

15



We practiced on the field a lot, and we ran into a problem with the spinner, but fixed quickly. We had mounted the arm successfully. We made minor adjustments to the robot.

name Adam

date 1/19/23

• Today, we've mainly been testing our robot. Our bucket, plate, and drivetrain have been working well. However, our shooter isn't smooth or consistent, and it just blurts out pucks.

• Arthur has been working on autonomous. It was going smoothly, but then the code was reset. We're going to test it out on the field soon.

The Engineering Design Process

- First identify the problem, and draw or come up with designs for a solution. We are generating concepts.
- Next, we are building and executing our designs.
- Test out our robot, and see how many points we can score.
- Monitor how well the robot did, and see what we can improve.

name Neelabh Garg ~~and~~ ~~I~~
date 1-20-23