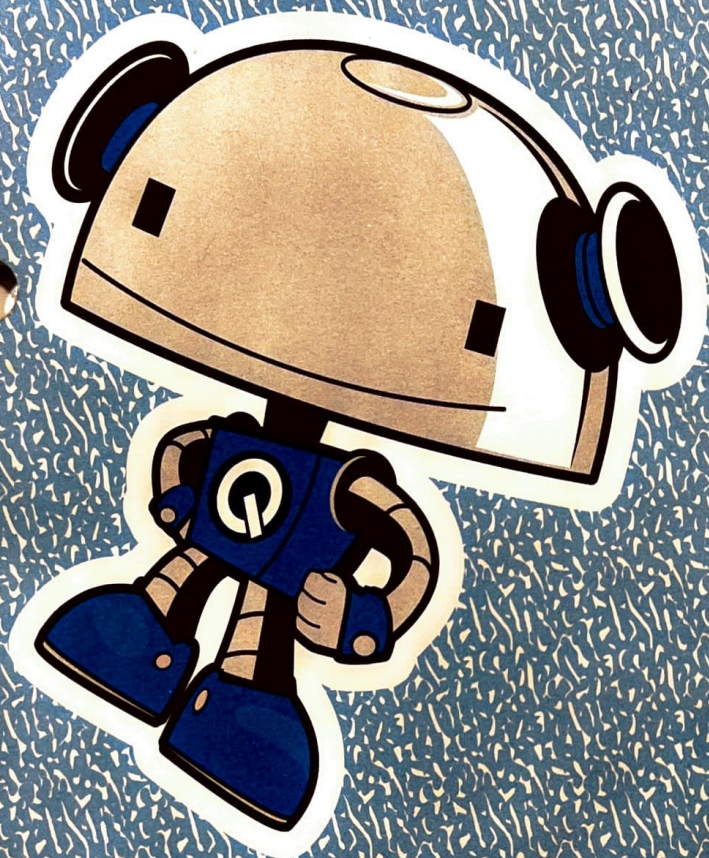


Evan Arsha Rhys Andrew



team number: 76268B

team name: Puck Punches

school:

start date: 9/2/2022

end date:

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

My Projects

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1	Pros 3 Cons of a Puncher	9/1/2022
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3	puck punchers	10/23/22
4	funnel	10/14/22
5	Spinner	10/14/22
6	Blue tower arm	10/28/22
7	New Chamber	10/28/22
8	Pull arm	11/4/22
9	New Bot	11/11/22
10	Bucket collection tray	11/18/22
11	Fixes to go	1/25/22
12	Drive base and purple collector	12/1/22
13	Spinner speed	12/4/22
14	Competition	12/10/23
15	Driving Practice	1/16/23
16	drive practice	1/15/23
17	Autonomous and drive practice	1/19/23

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.

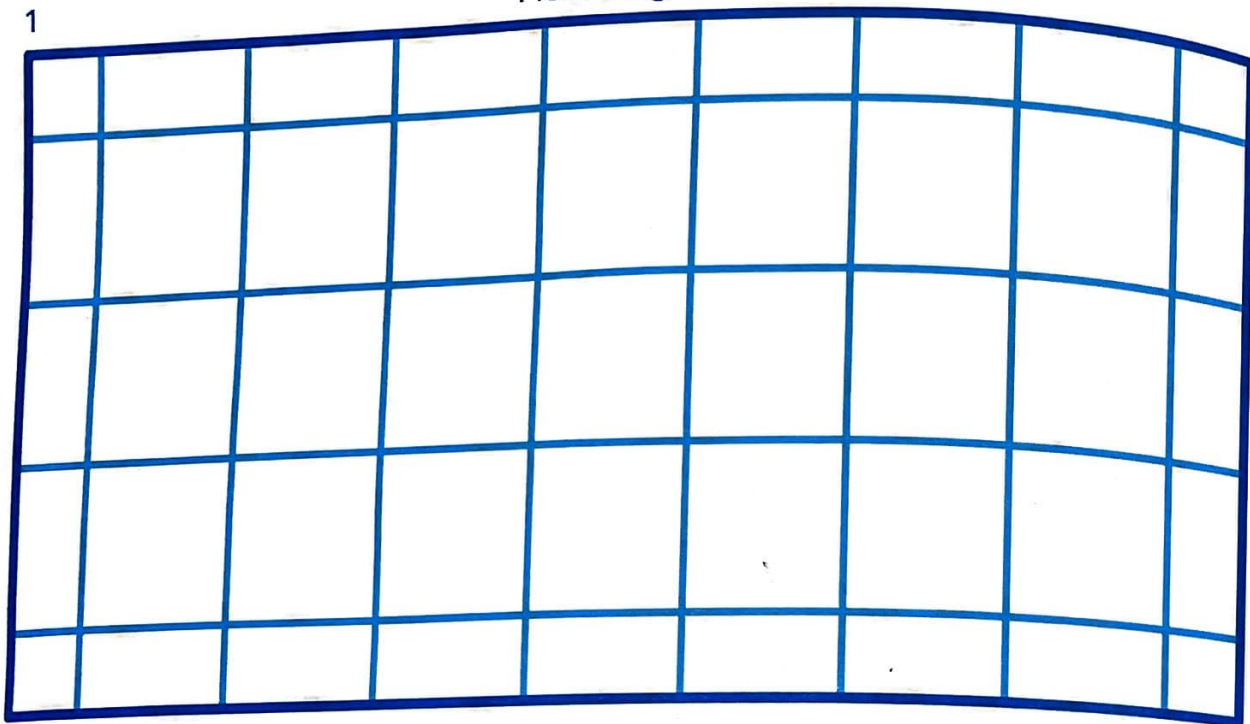
• Our plan for our robot is to have a dual puncher. The purpose of the dual puncher is to hit the orange disks into the scoring zones. To get the disks into the dual puncher we plan to use a funnel. The disks would then be dropped into the dual puncher ready to be fired. To get the disks down from the purple tower we plan to attach rubber bands to two gears and spin the bands to rotate the spinning part on the tower.

Game Strategy

Pros & Cons of a Puncher

Field Diagram

1



- ☐ Think
- ☐ Do
- ☐ Test

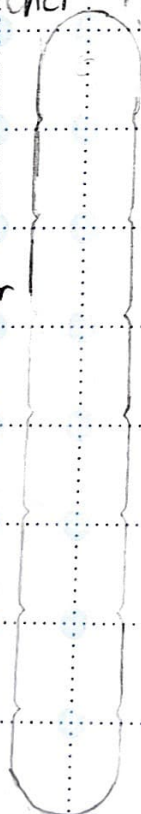
Puncher Pros & Cons

PROS

- consistent
- shoots pretty fast
- only takes up 1 motor

CONS

- inconsistent when loading isn't optimized

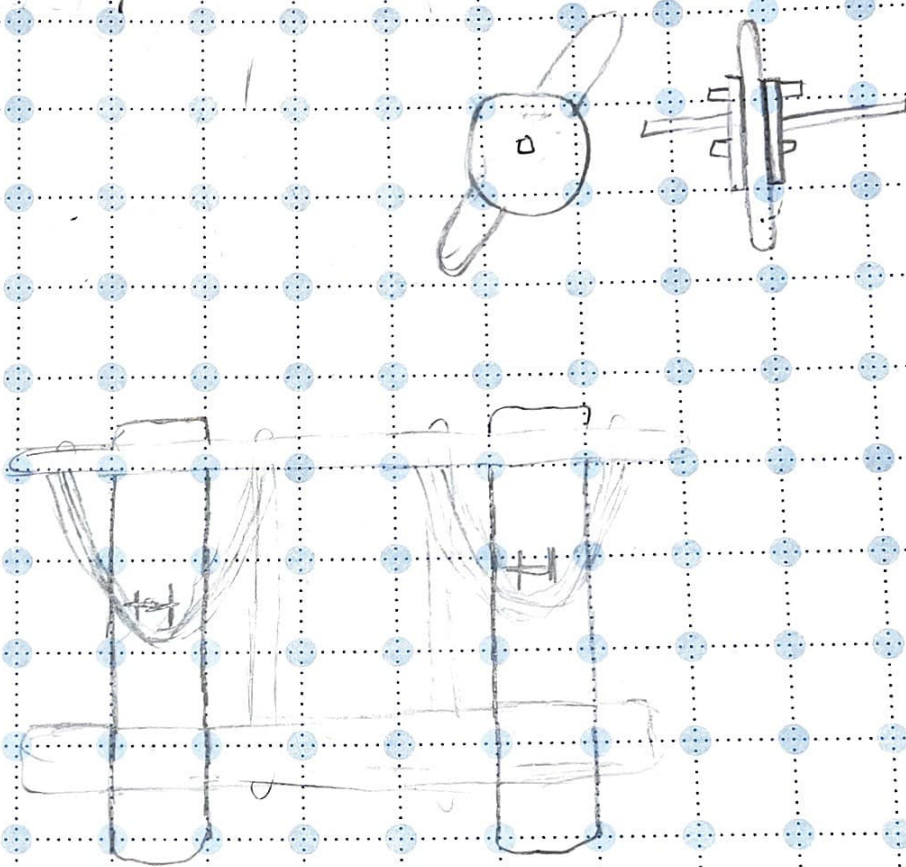


me Andrew Vukobratovic
te 9/9/2022

Puncher Design

What do engineers do? Engineers make things possible! They use math and engineering science to create and build the products, buildings, and structures we see every day.

2



- 2 punchers
- 1 shaft - 1 motor
- 2 chambers to hold discs
- 2 mechanisms to retract punchers
- 4 rubber bands (2 each)

The reason we chose a puncher is because it is more reliable. The puncher can fire faster more consistently and it doesn't take up as much time in between shots.

name Andrew Vicharenko

date 9/9/2022

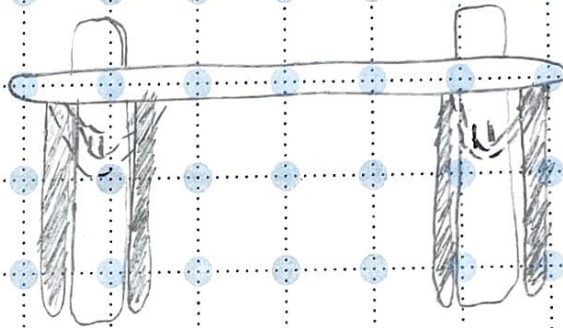
Puncher Changes



Keep your parts organized. It will save time when you are building!

4

key
○ - part
--- - Rubber Bands
|| - connector



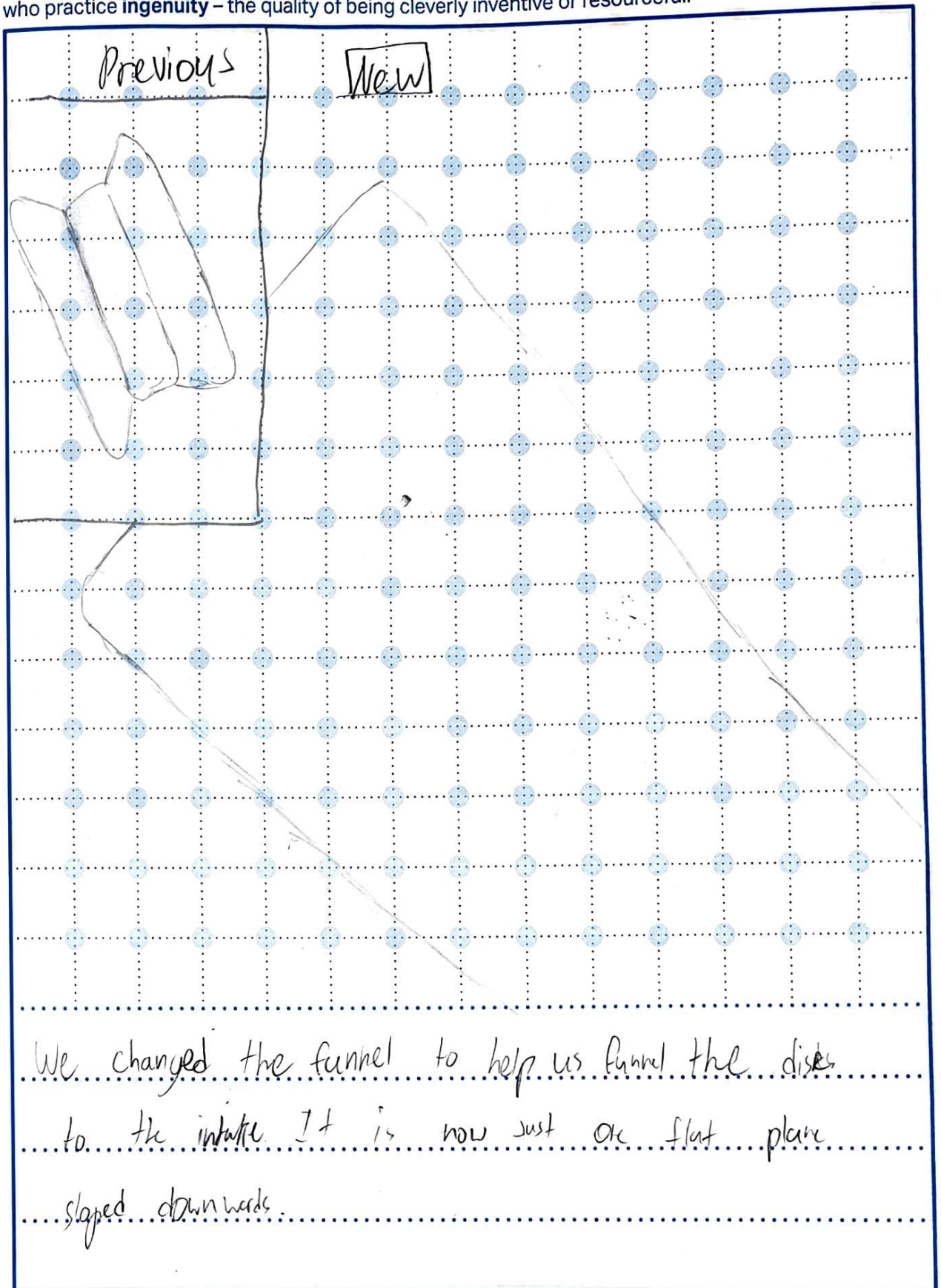
We moved the shaded part back one because it was making the pucks more slanted after the puncher had fired.

name Andrew Virshupenko

date 9/23/22

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

6



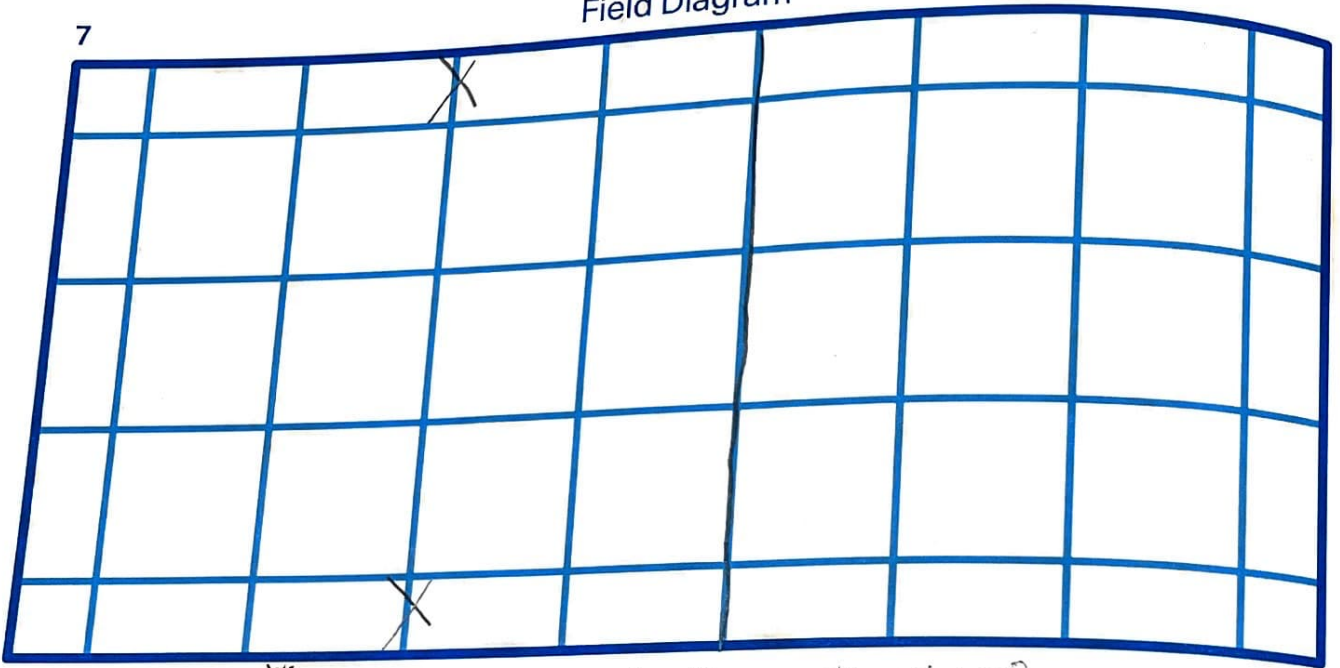
We changed the funnel to help us funnel the disks to the intake. It is now just one flat plane sloped downwards.

name Andrew Vurcharenko

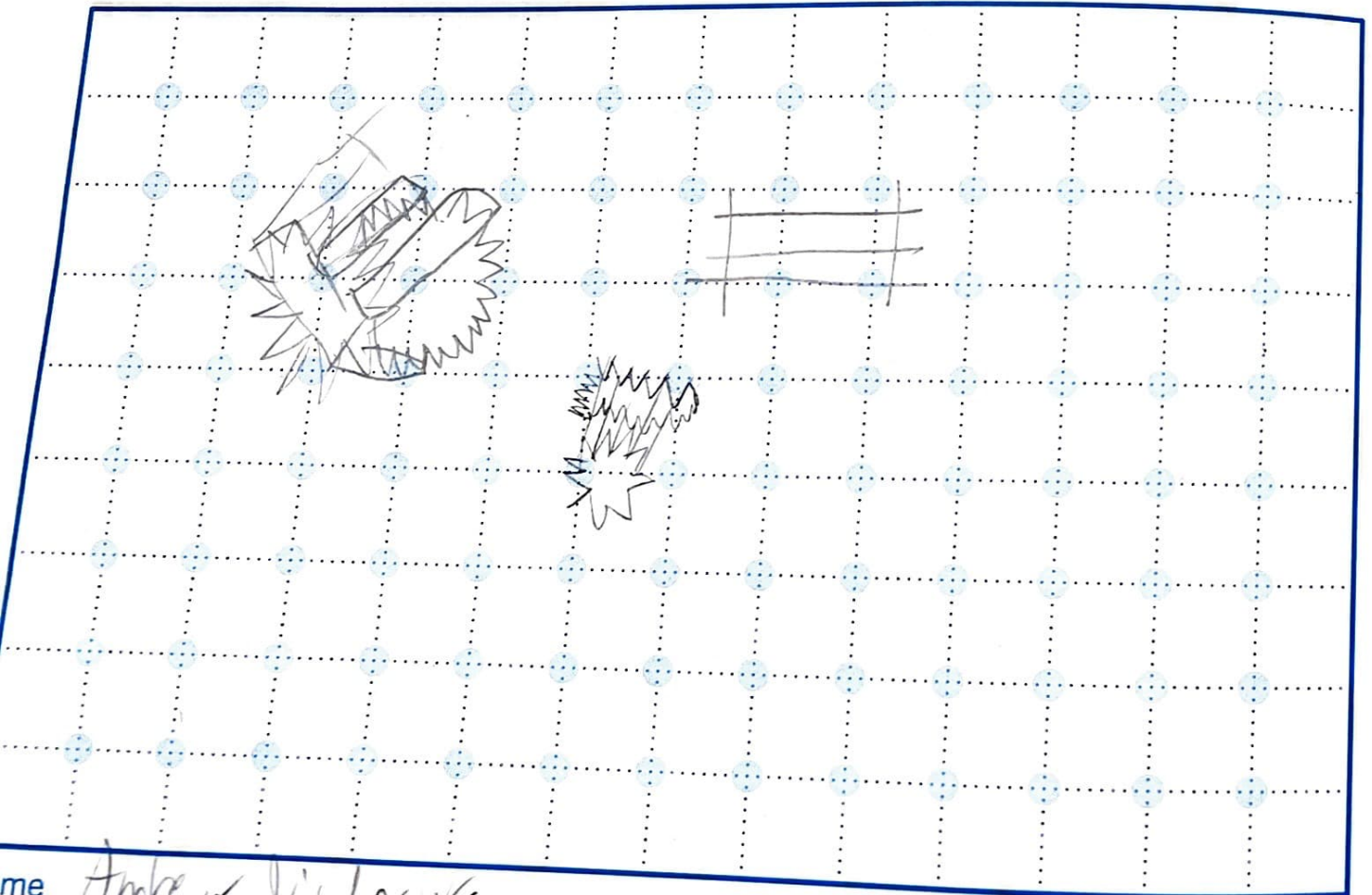
date 10/1/2021

Field Diagram

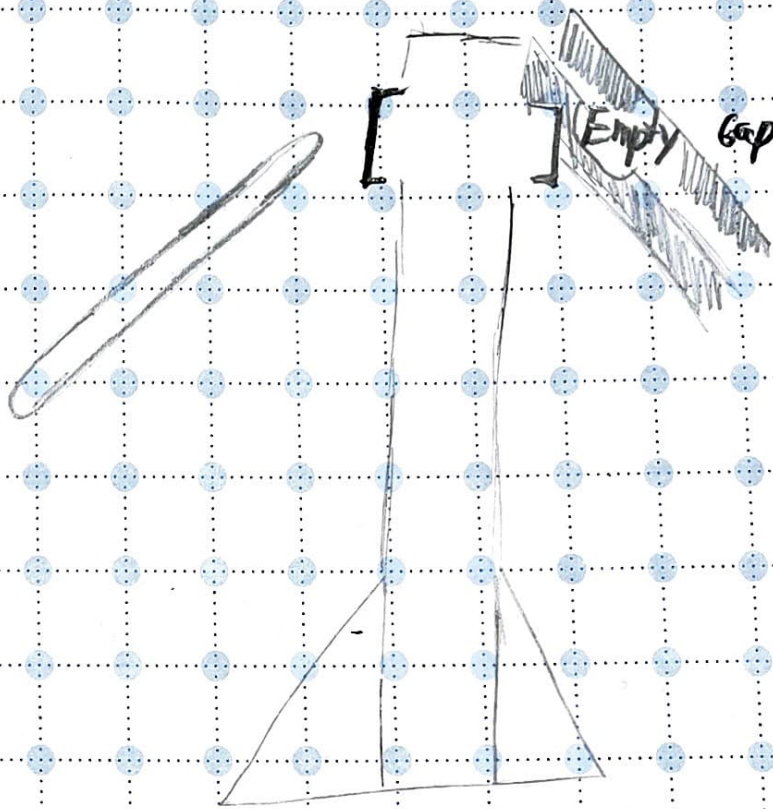
7



- ☒ Think How do ^{we} make a robot spin the purple spinner?
- ☒ Do make a design
- ☒ Test It works



me Andre & Vichayuko
e 10/1/22



The Idea is if we attach a piece onto the back of the robot, we will be able to lift the blue tower down without using a motor.

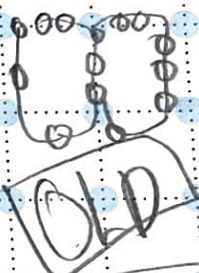
name Andrew Kirchanenko

date 10/28/22

Birds eye view



Birds Eye View



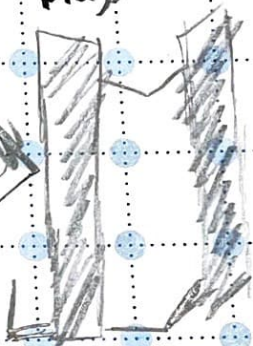
Side View



Side view



Diagonal View



Diagonal View



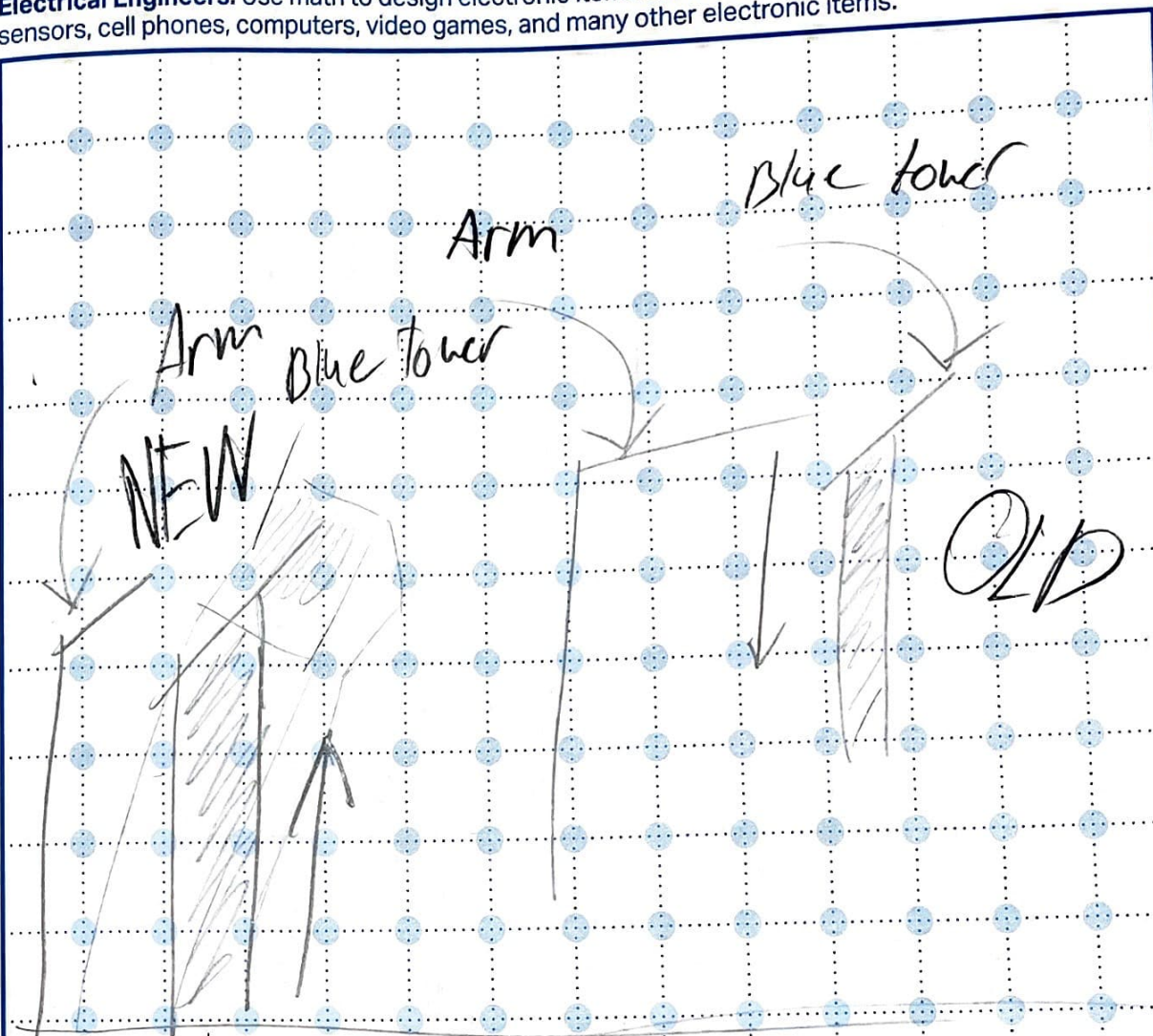
The Old design had gave too much room for the discs/pucks to move and tilt. So, we made the chamber thinner so it would give the discs/pucks less room.

name

Andrew Vicharenko

date

10/28/21



We changed the Arm from a pull-down arm, to a push up arm.

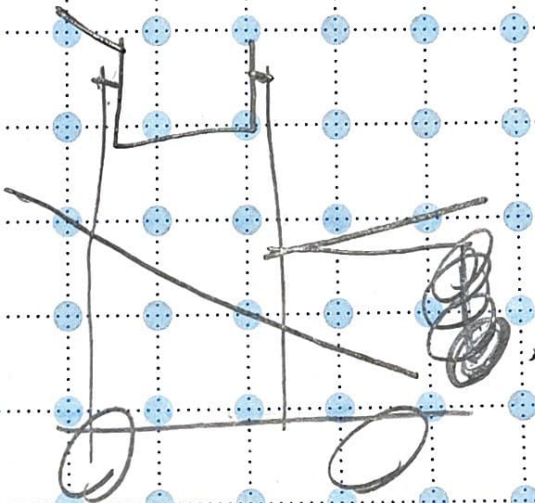
It makes it easier for us to build,

It also is easier to live up and ~~push~~ score

the blue tower.

name Anshul Vicharenko

date 11/9/02



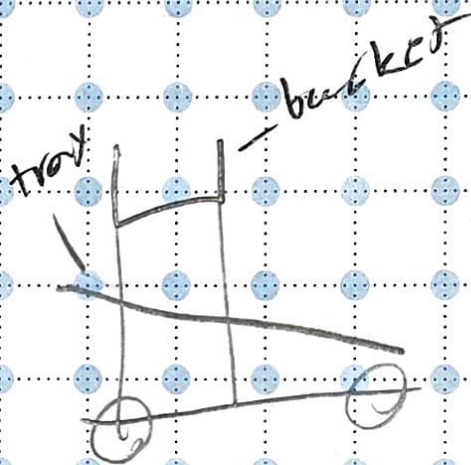
We scrapped the robot and decided to build a new one. We made an improved shooter and spinner. ~~and had a bucket~~
~~and tray for collection.~~

name

Avisha Far Khan

date

11/11/22



We made a bucket and tray for collection of the blue and purple towers. It slides the purple towers down to the shooter.

name

Arsha Farikhondch

date

11/19/22

We fixed small things on the robot
and made sure they worked.

name

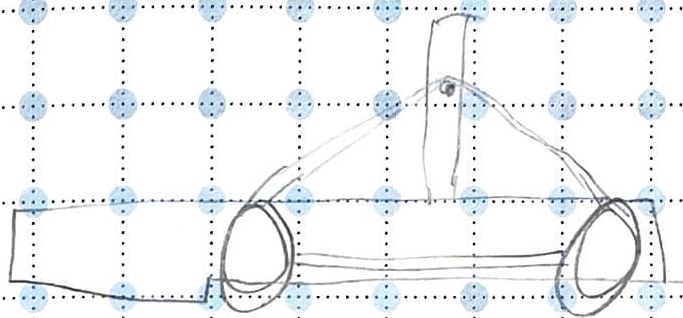
Arsha Farkhondeh

date

11/25/22



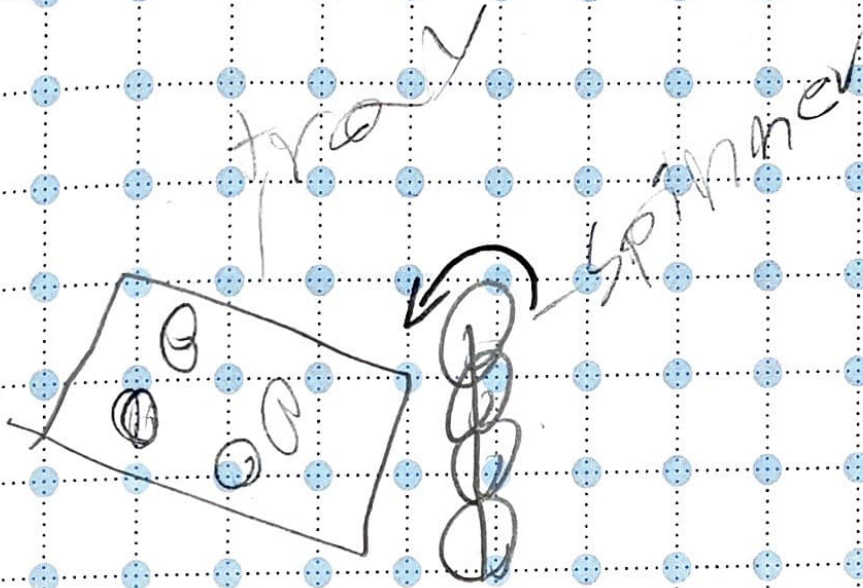
Place your robot on the floor before you test new code.



I fixed the drive base, and the purple puck collector

name Rhys Fischer

date 12/2/2022



We fixed the speed of the spinner to shoot ~~farther~~ and drove a little.

name Arsha Farukhaneh
date 12/9/22

Biomedical Engineers: They design equipment that you will find in hospitals and doctor's offices, such as X-ray machines, scanning equipment, defibrillators, and prosthetic devices.

24

We did driving practice and
we got 25-50 points.

name

date

Arsha Farkhondeh
1/6/23

VEX IQ

More driving practice for competition

name

Arsha Farikhondeh

date

1/13/23

We practiced driving and worked
on the autonomous.

name

Arsha Farkhondeh

date

1/19/23