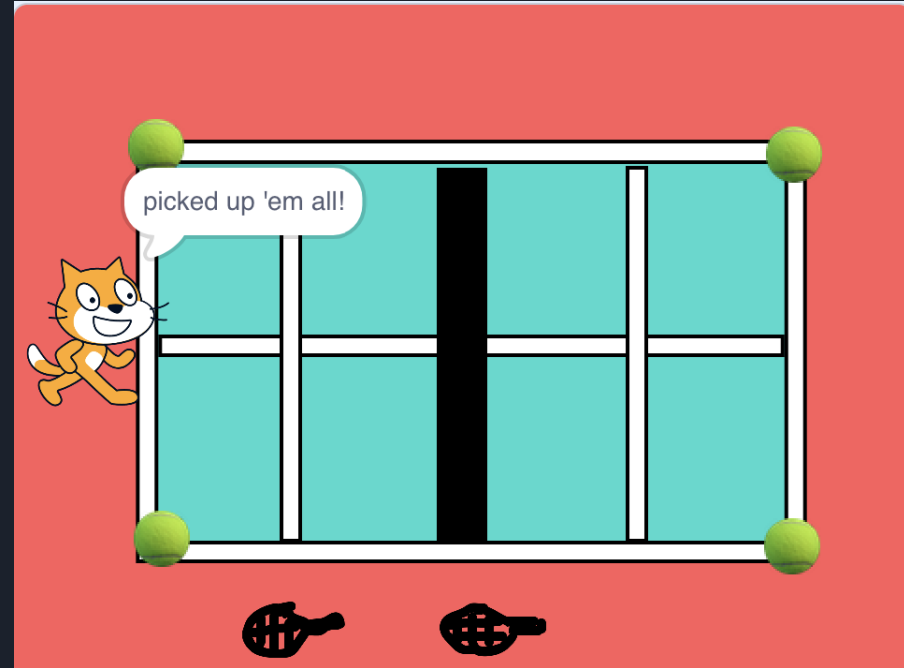
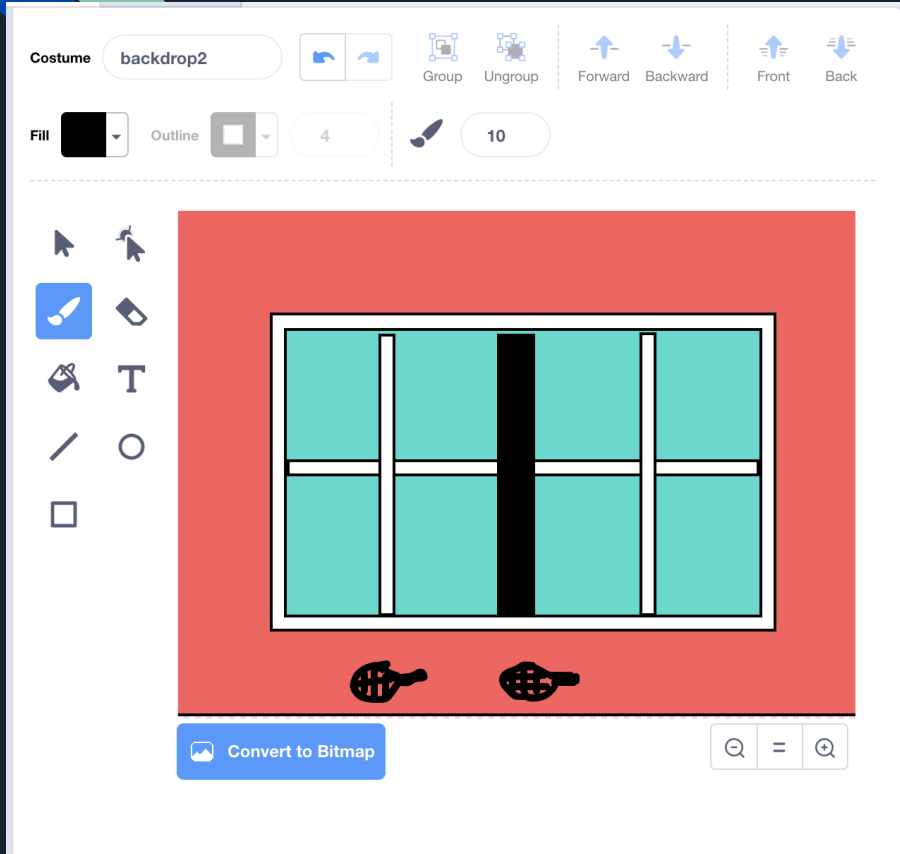


# Week 2 Project: Tennis Ball Pick Up

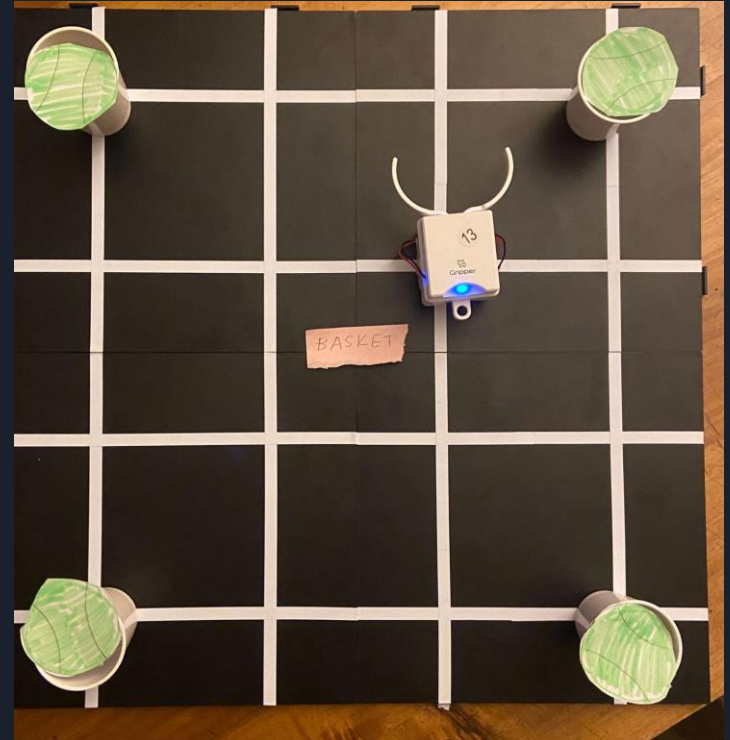
Seojun Yoon

# Memorable Place: School Tennis Court

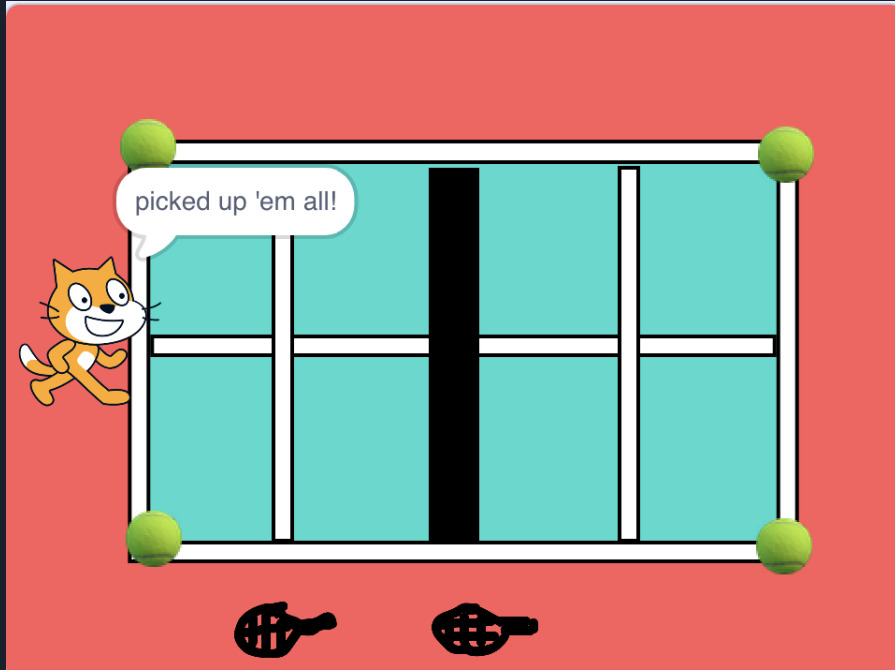


# What's used in the Project

- Hamster Robot
- Gripper
- Cup(with tennis ball drawing attached)
- Grid Board



# Final Code



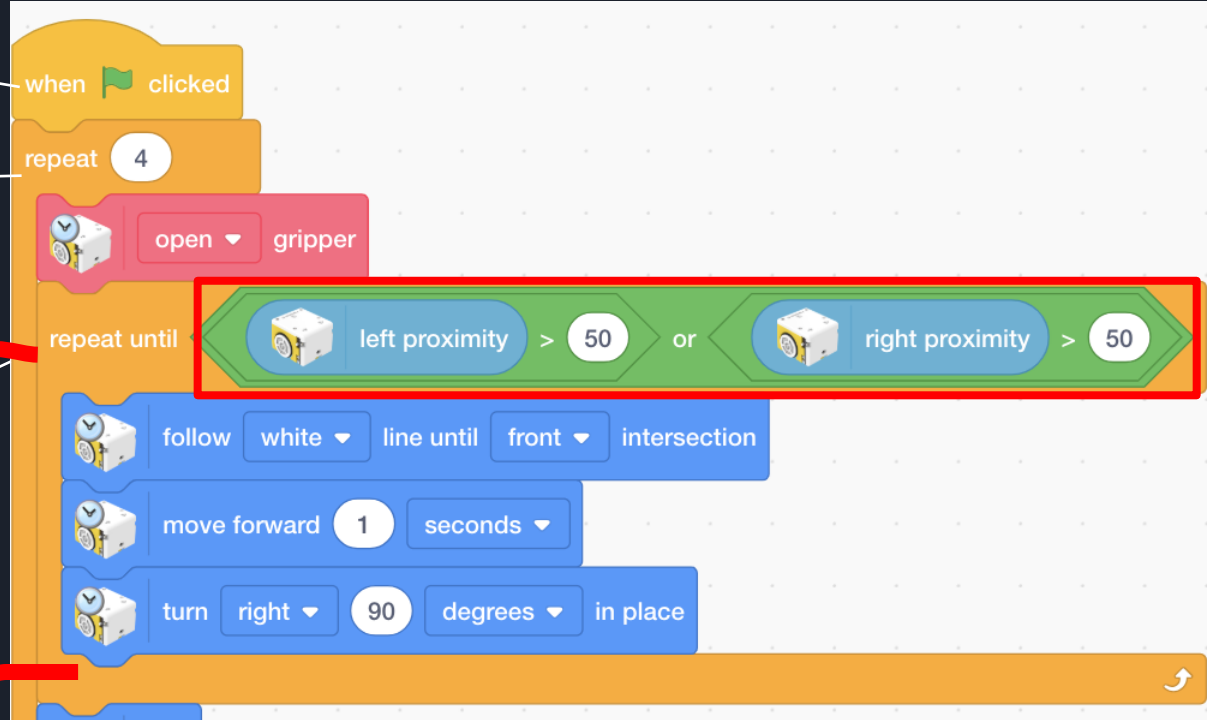
```
when clicked
repeat 4
  open gripper
  repeat until left proximity > 50 or right proximity > 50
    follow white line until front intersection
    move forward 1 seconds
    turn right 90 degrees in place
  stop
  open gripper
  move forward 2 seconds
  close gripper
repeat 2
  follow white line until front intersection
  move forward 1 seconds
  turn right 90 degrees in place
  follow white line until front intersection
  turn left 0.3 seconds in place
  move forward 1.2 seconds
  open gripper
  move backward 1.2 seconds
  turn right 0.3 seconds in place
  follow white line until front intersection
say picked up 'em all!
```

# Code Pt.1

Start the Code

Repeat the whole thing 4 times bc there are 4 balls

Until Hamster detect a tennis ball, it goes one block and turn left



```
when green flag clicked
repeat 4
  open gripper
  repeat until (left proximity > 50 or right proximity > 50)
    follow white line until front intersection
    move forward 1 seconds
    turn right 90 degrees in place
```

The code consists of the following blocks:

- when green flag clicked** (yellow)
- repeat 4** (orange)
- open gripper** (pink)
- repeat until** (orange) with a condition: **left proximity > 50 or right proximity > 50** (green)
- follow white line until front intersection** (blue)
- move forward 1 seconds** (blue)
- turn right 90 degrees in place** (blue)

A red box highlights the **repeat until** block and its condition. A red arrow points from the text box to the **repeat until** block.

## Code Pt.2

Stops hamster robot when it detects a tennis ball

Move forward and close gripper to grab a ball

Going back to the basket



# Code Pt. 3

Going back to the basket

Put the ball into the basket

Repeat the whole process for 4 times to collect all of the balls

Print picked up em all after code is done

```
follow white line until front intersection
turn left 0.3 seconds in place
move forward 1.2 seconds
open gripper
move backward 1.2 seconds
turn right 0.3 seconds in place
follow white line until front intersection
repeat loop
say picked up 'em all!
```



Video

