

The background is a soft-focus photograph of a workspace. A silver laptop is open on a light-colored wooden desk. To the right, a large, dark-colored vase holds a green plant. The overall lighting is bright and natural, creating a clean and professional atmosphere.

Beat Me

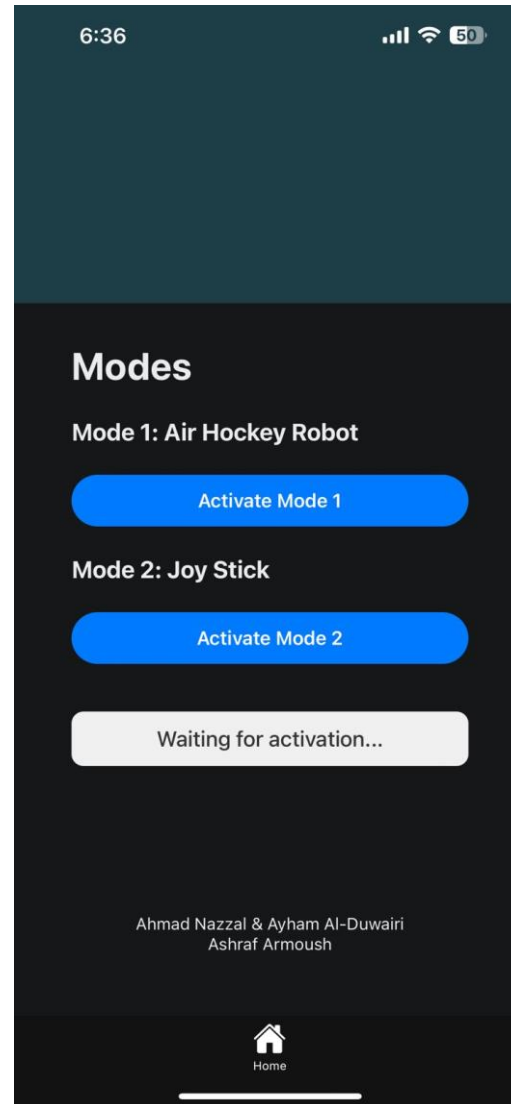
CONTENT

- 1 MAIN FEATURE
- 2 OBJECTIVES
- 3 ROADMAP
- 4 ROBOT STRATEGY
- 5 FUTURE WORK



MAIN FEATURES

Automatic Mode



Joystick Mode

THE OBJECTIVES

THE OBJECTIVES

Practice

01

Entertainment

02

Financial
venture

03

A red pushpin is pinned to a white surface. The surface has faint blue markings, including two horizontal ovals at the top and a larger red oval on the right. The text "THE ROADMAP" is centered on the surface.

THE ROADMAP

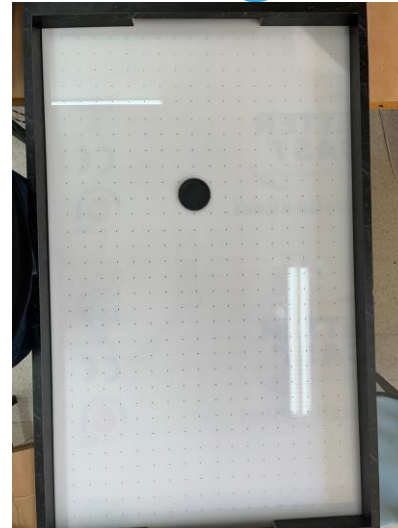
R o a d m a p



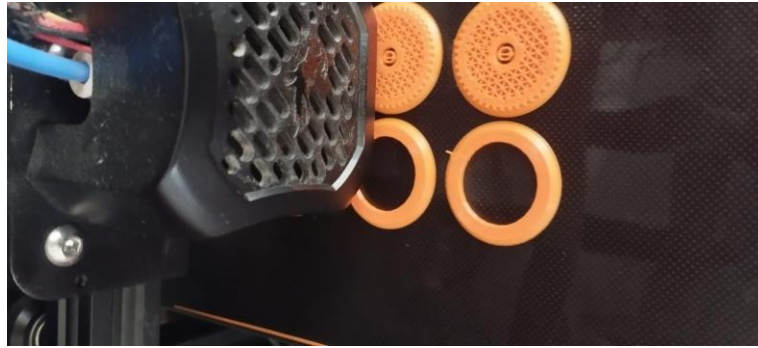
Support Layer Design



CNC And Table Design



R o a d m a p



**3D
Components** 

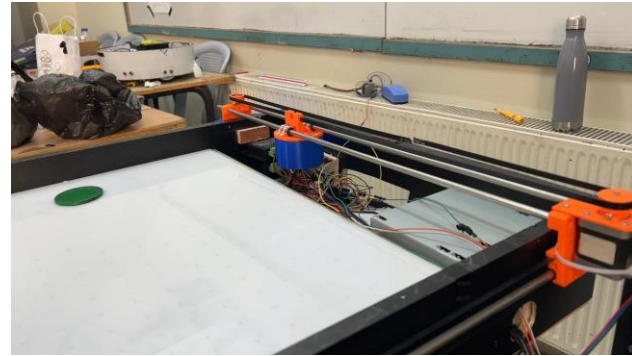


**Another
Components** 



**Stepper
Motors And
Drivers** 

R o a d m a p



Sound
Feedback



Score
Display




Finish The
Table

Roadmap




**Finish The
Project**

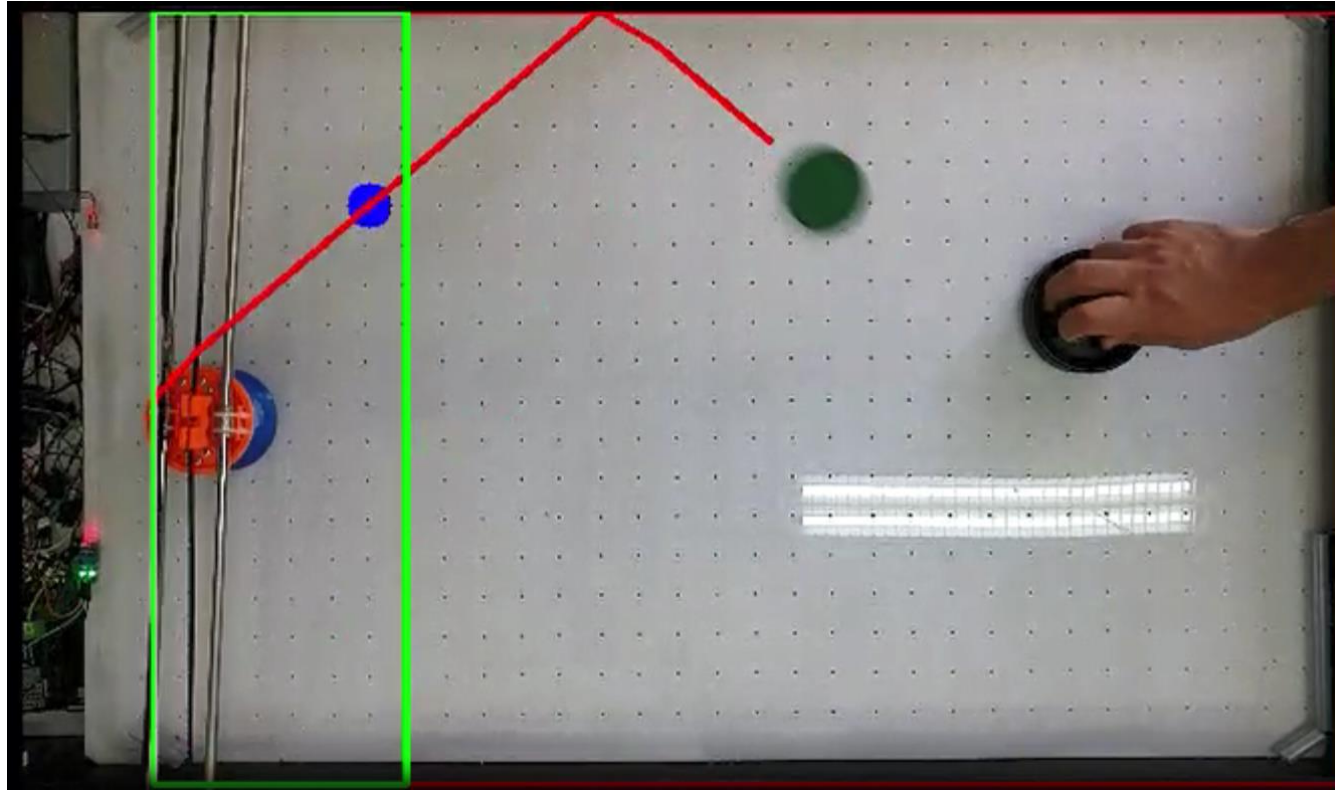

**Connect Camera
With Raspberry**


**Add The
Camera**

The Strategy

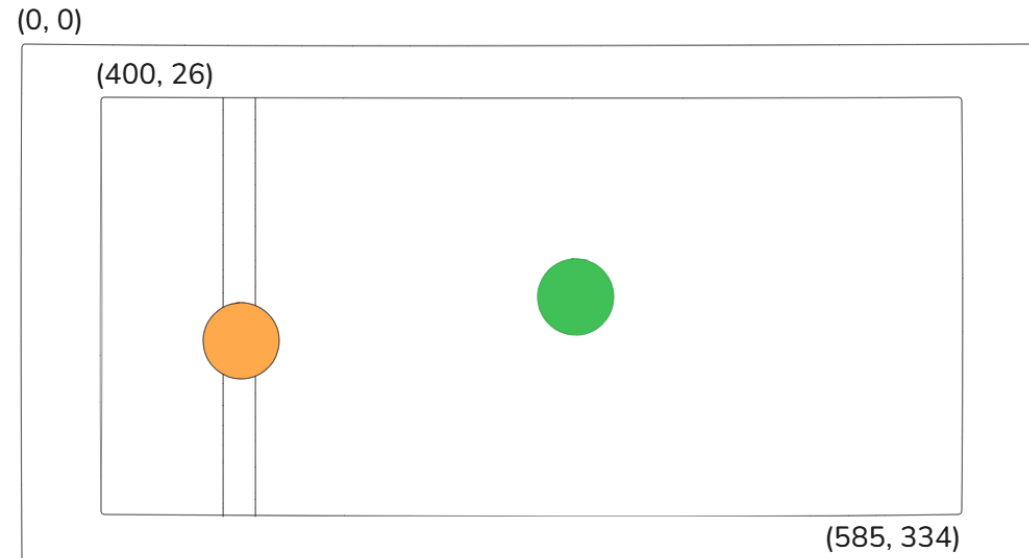


CALCULATE TARGET POSITION



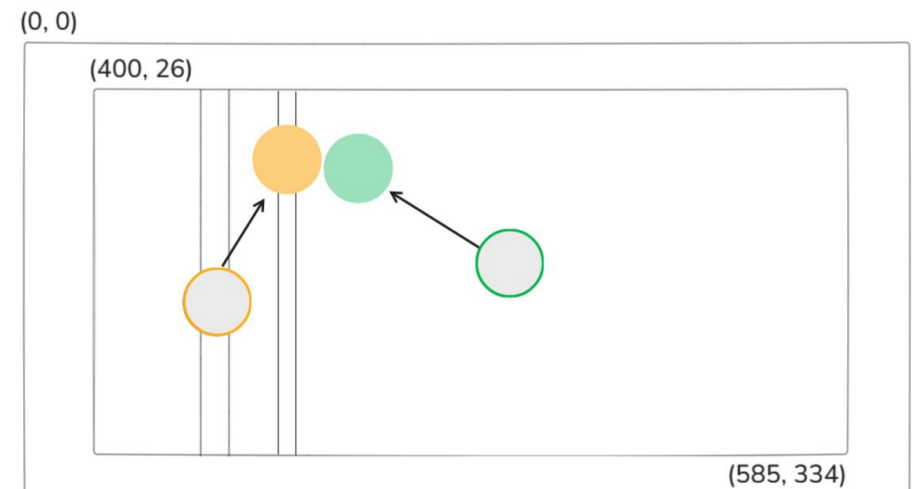
CALCULATION FOR TARGET POSITION

- **185 pixels on x-axis (31cm)**
- **308 pixels on y-axis (52cm)**
- **5.9 pixel / cm**
- **192.3 steps / cm on y-axis**
- **200 steps/cm on x-axis**



Calculate Target Position

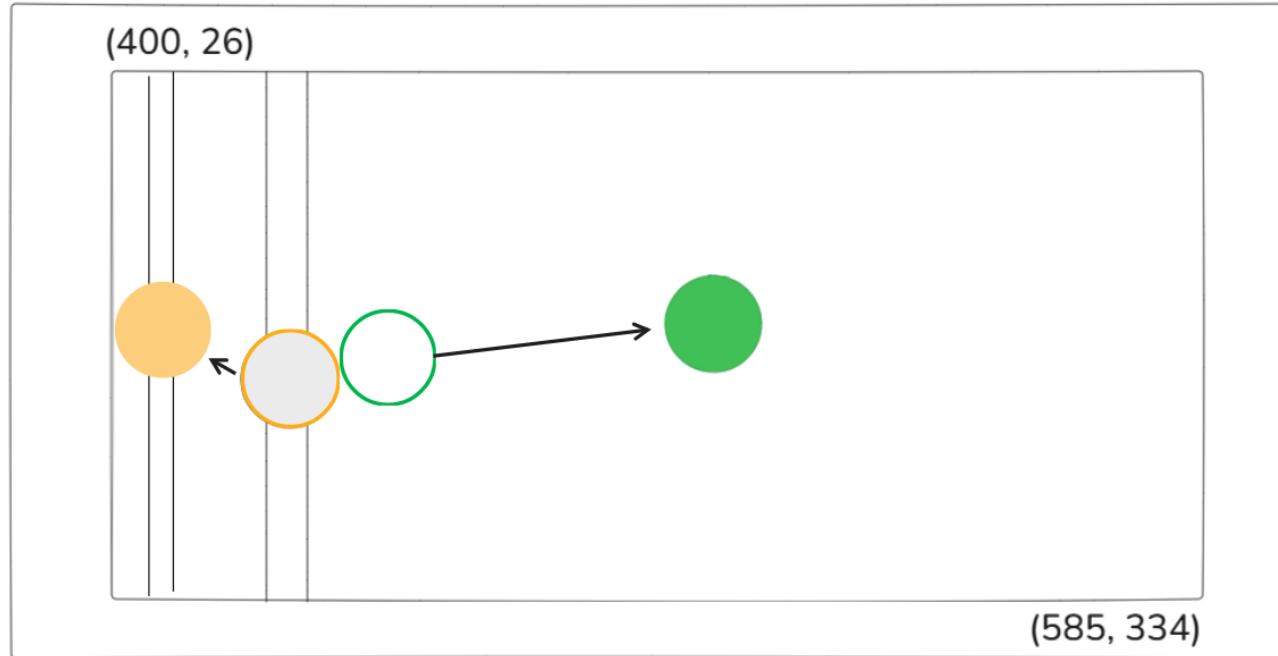
- $\text{diffXPixels} = \text{puck Xposition} - \text{robot Xposition}$
- $\text{pixelsXToXcm} = \left(\frac{\text{diffXPixels}}{5.9} \right)$
- $\text{cmXToSteps} = \text{round}(\text{pixelsXToXcm} \times 192.3)$



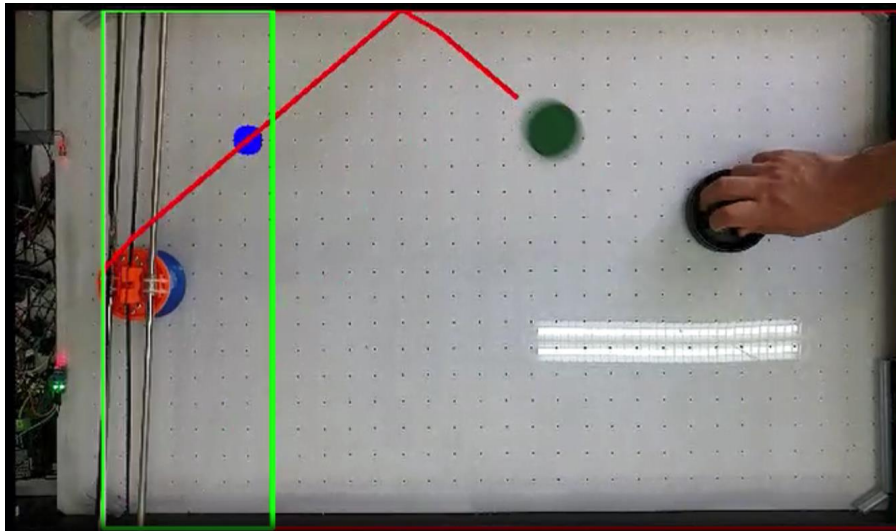
- The **strategy**

AUTOMATED BACK TRACK TO INITIAL POSITION

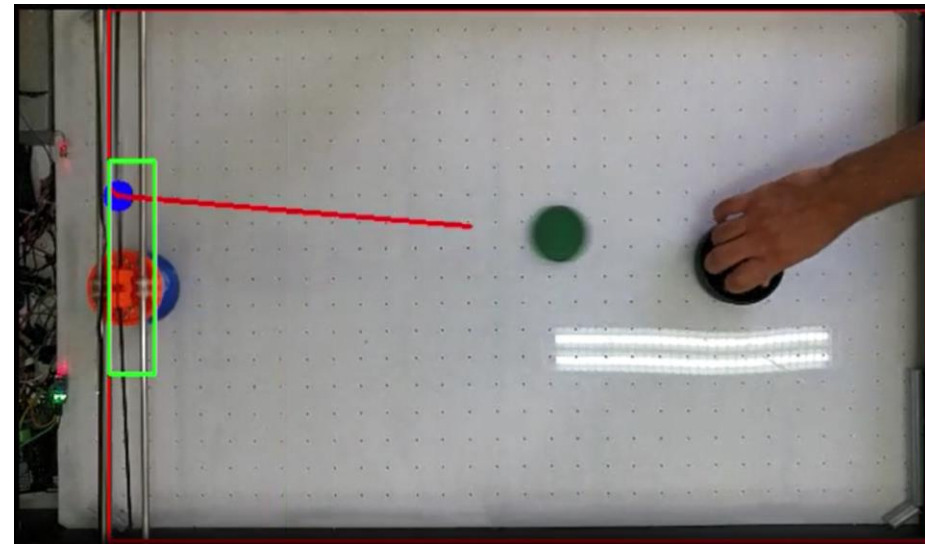
(0, 0)



AUTOMATED MODE SWITCHING



A t t a c k M o d e



D e f e n s e M o d e

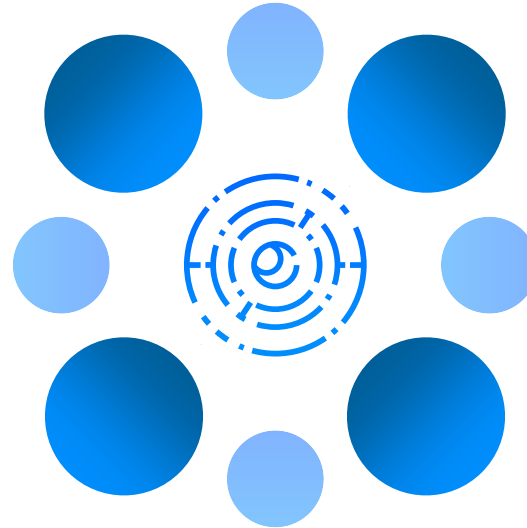
Future Work



Future Work

**Advanced AI
Integration**

**Puck Return
Control**



**Full Control From
Phone**

**Remote
Controlling**



Thank You
Any Question?