



# AIR-PLAY

A Gesture Controller that turns your movements into commands

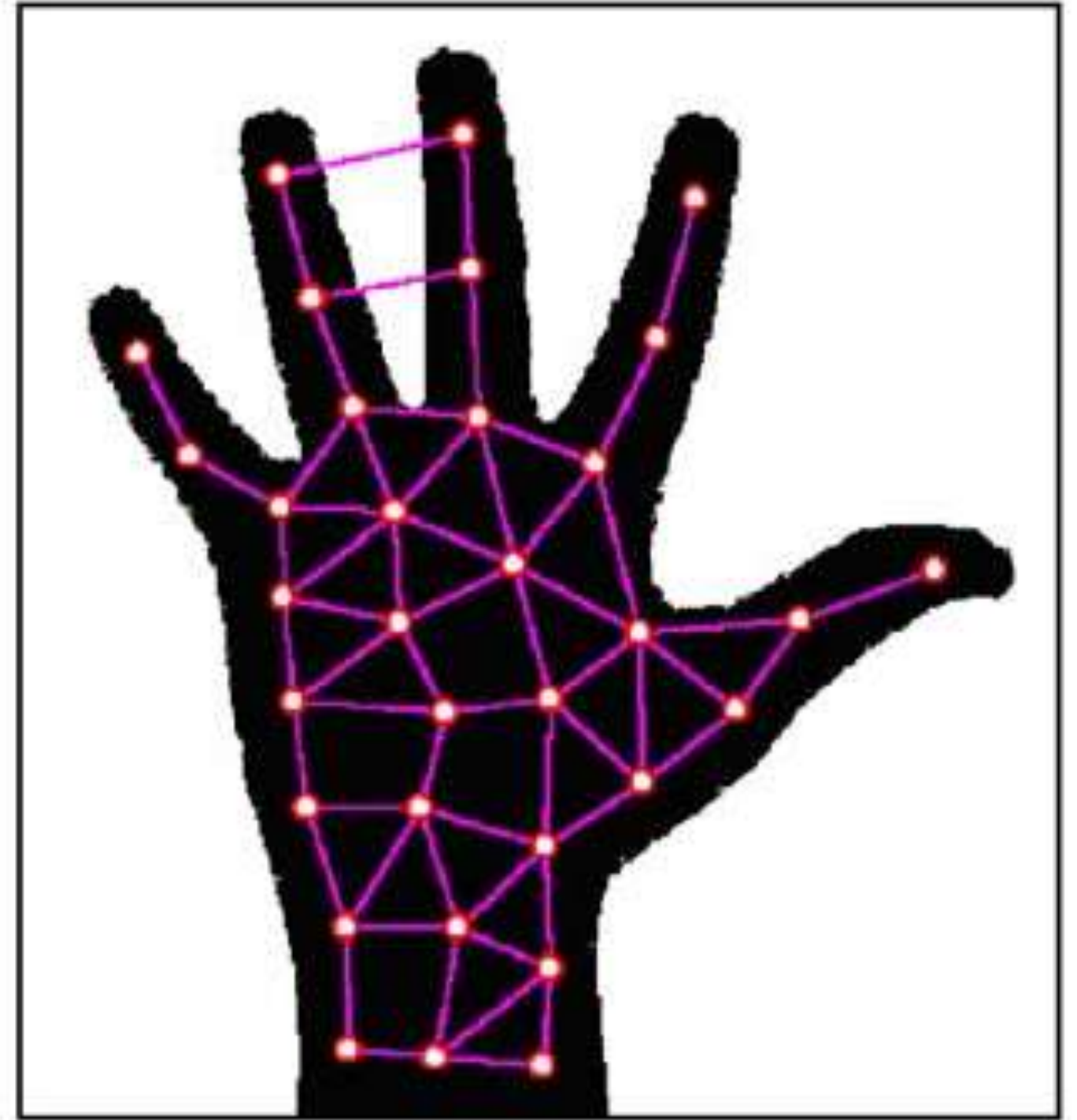
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# GESTURE CONTROLLER

- Python based application
- Uses Computer Vision technologies
- Uses Image Recognition techniques
- Detect hand & head gestures
- Performs action based on gestures



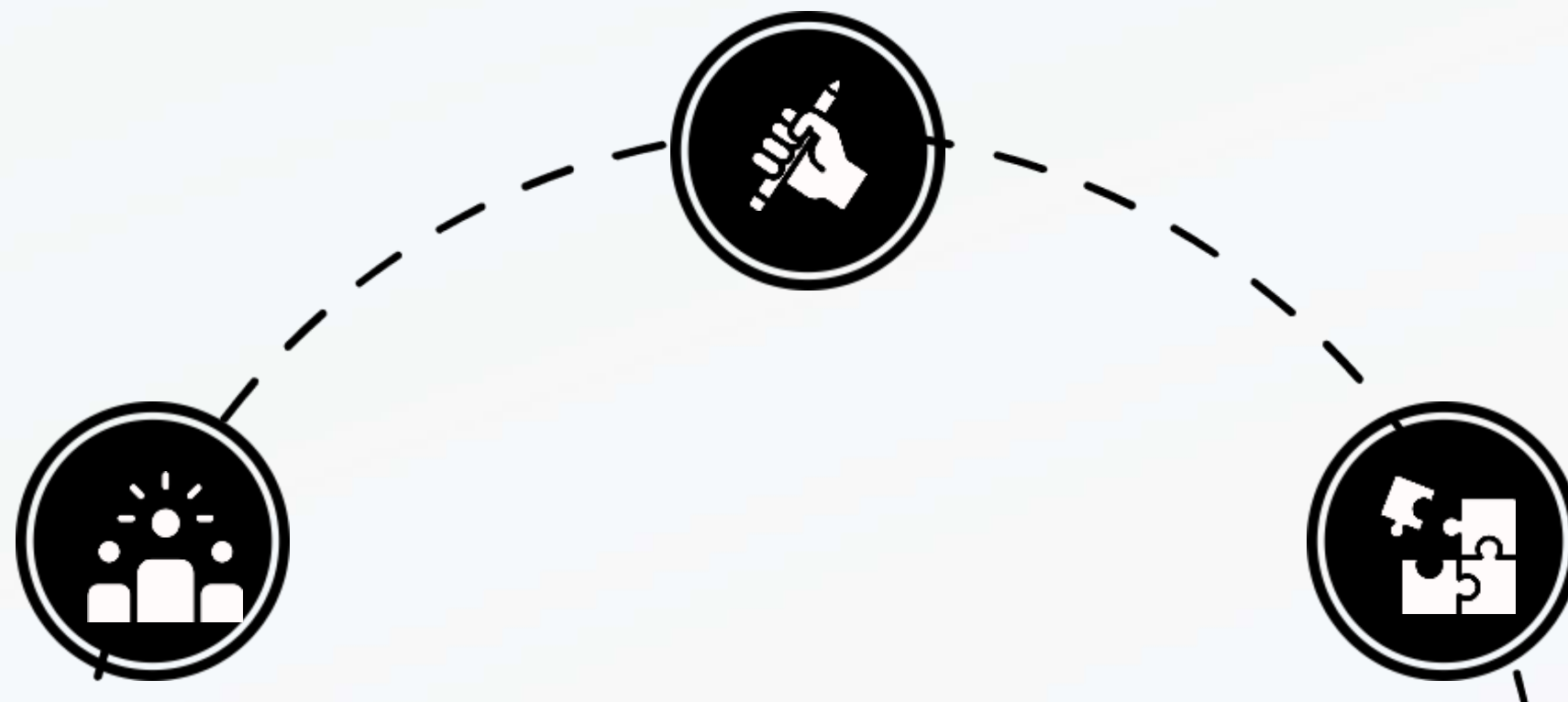
# HARDWARE REQUIREMENTS

## CAMERA

A webcam or any compatible camera for capturing real-time video input.

## COMPUTER

A computer with sufficient processing power to handle real-time video processing and game logic.



# SOFTWARE REQUIREMENTS

## PROGRAMMING LANGUAGE

Python

## LIBRARIES

OpenCv , Mediapipe, CVZone , Tkinter,  
Pyautogui

## GAME ENGINE

Pygame

# OTHER REQUIREMENTS

Proper background light





# WORKING PROCESS

Start the webcam or other camera linked with the device

**CAMERA  
INITIALIZATION**

Track the hand or head using opencv

**TRACKING**

Recognize gestures using mediapipe, cvzone

**RECOGNITION**

Control the mouse and keyboard using pyautogui

**CONTROL**



# USE-CASES

## *Handicapped people*



- Useful for handicapped people.
- Different hand & head gestures for different handicap people

- Can be integrated with AR / VR
- Cheap & Affordable competitor for AR/VR

## *AR / VR*



# USE-CASES

## *Smart Devices*



- Smart Devices can be made.
- Instruct devices to perform task through gestures.

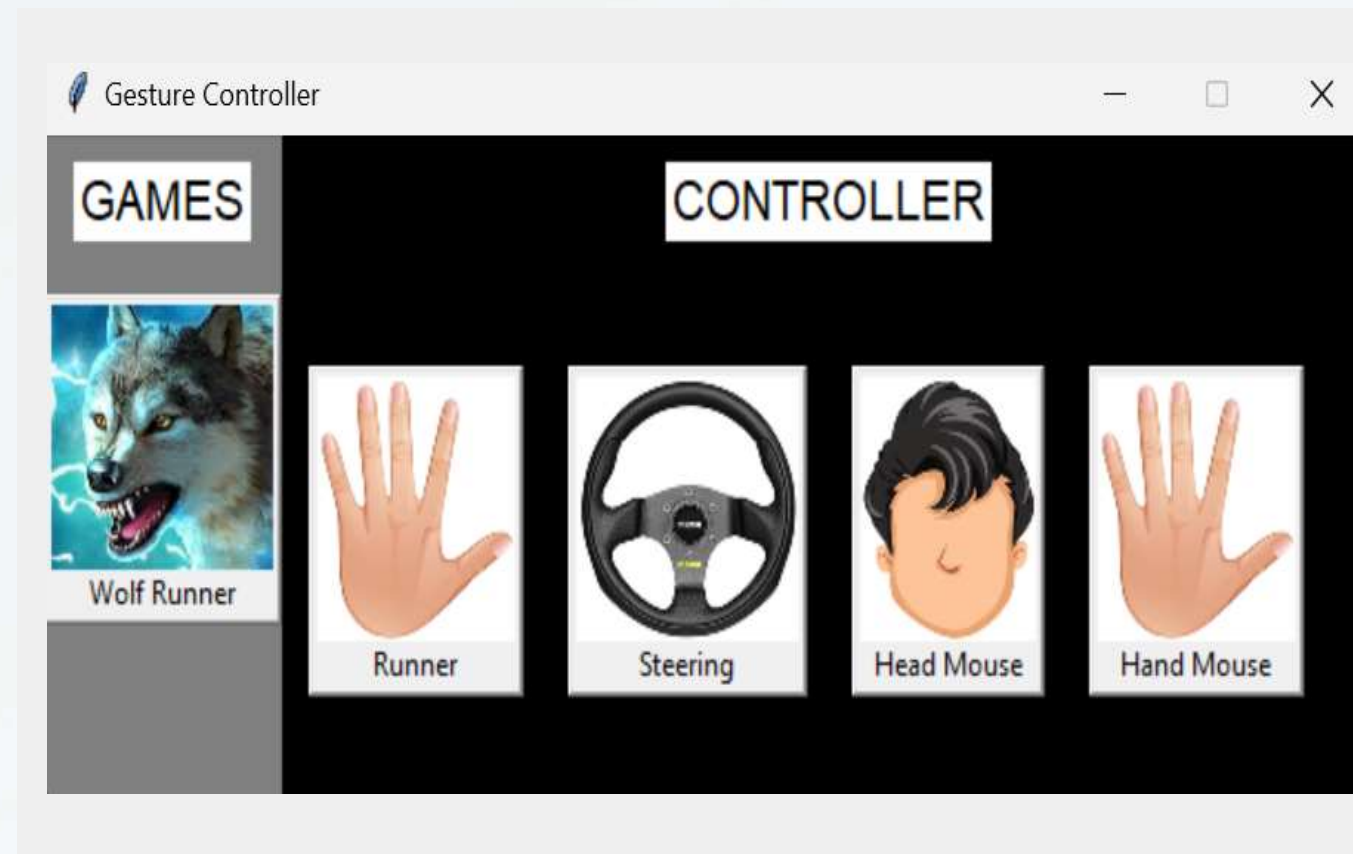
- No physical interaction needed with physical devices.
- Can be used at a recognizable distance.

## *No Physical Interaction*





# APPLICATION



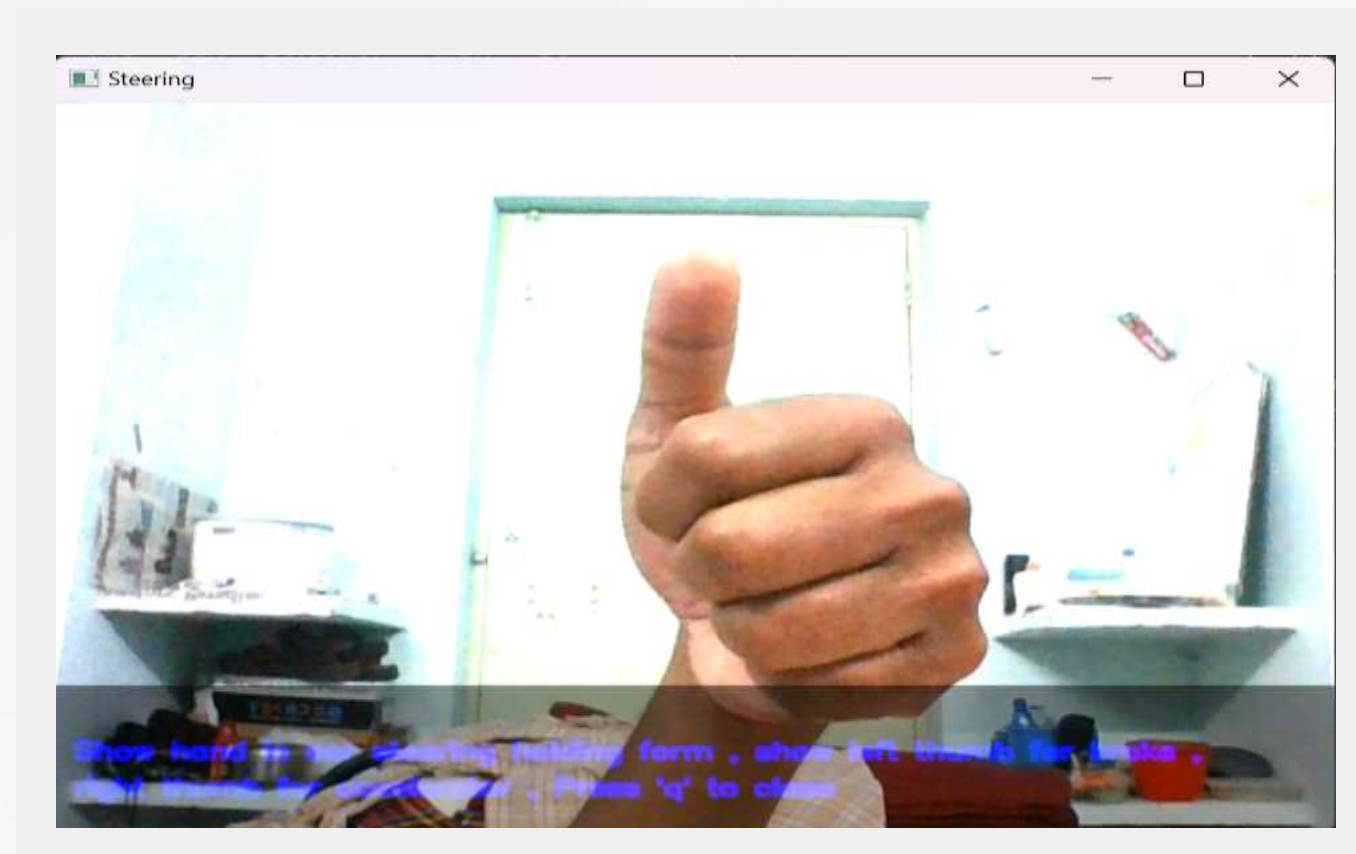
**HOME PAGE**



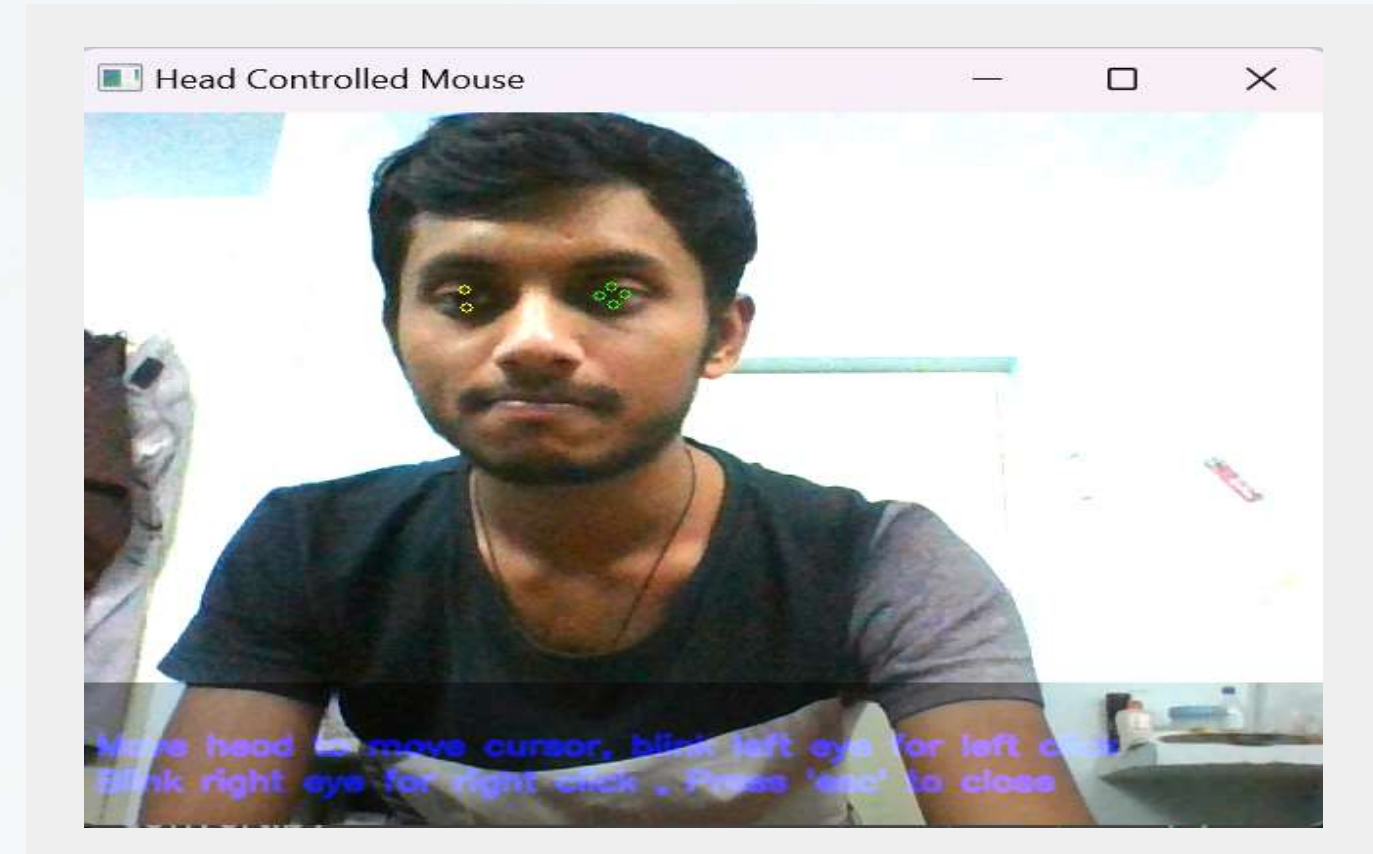
**AROW KEY  
CONTROLLER**



# APPLICATION

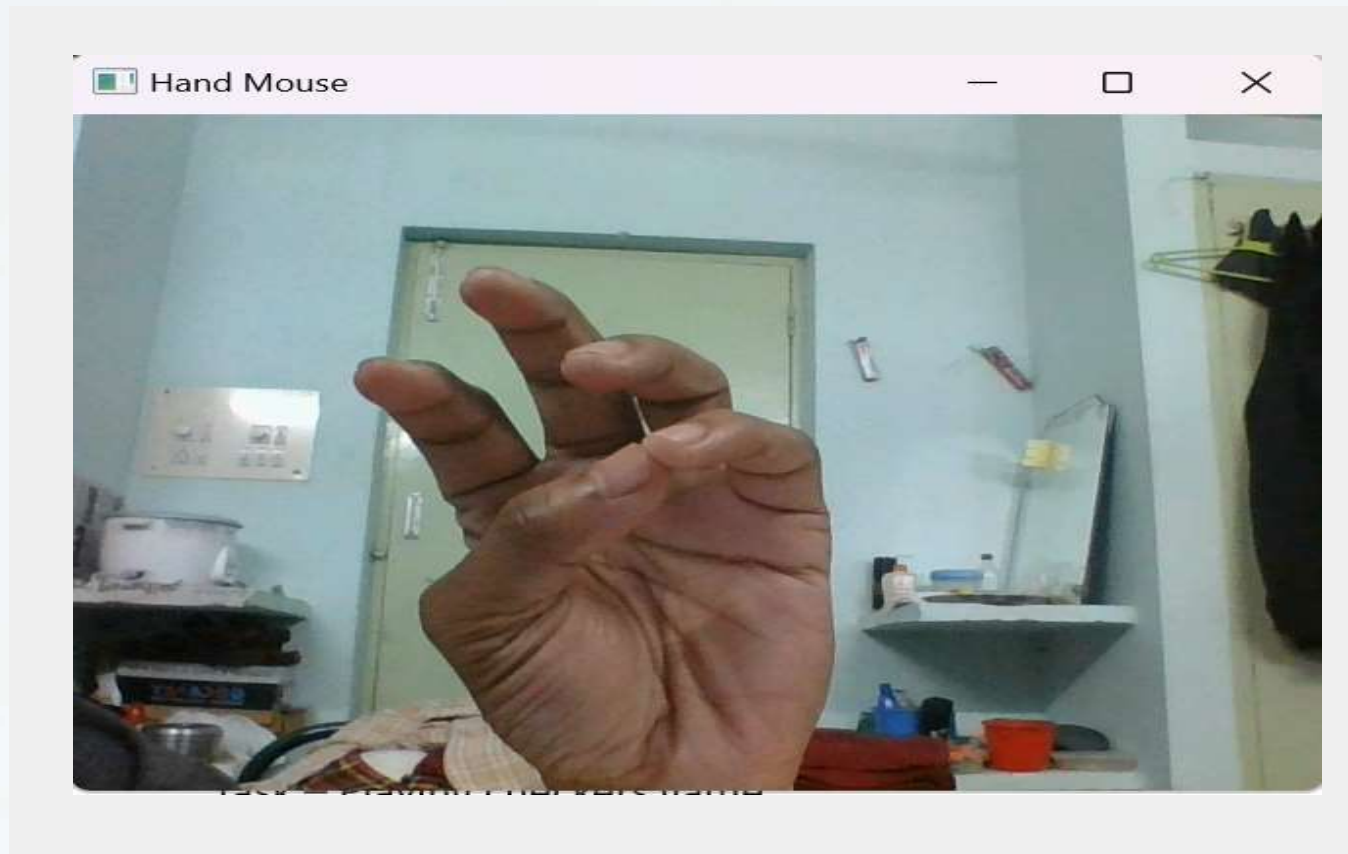


**STEERING**

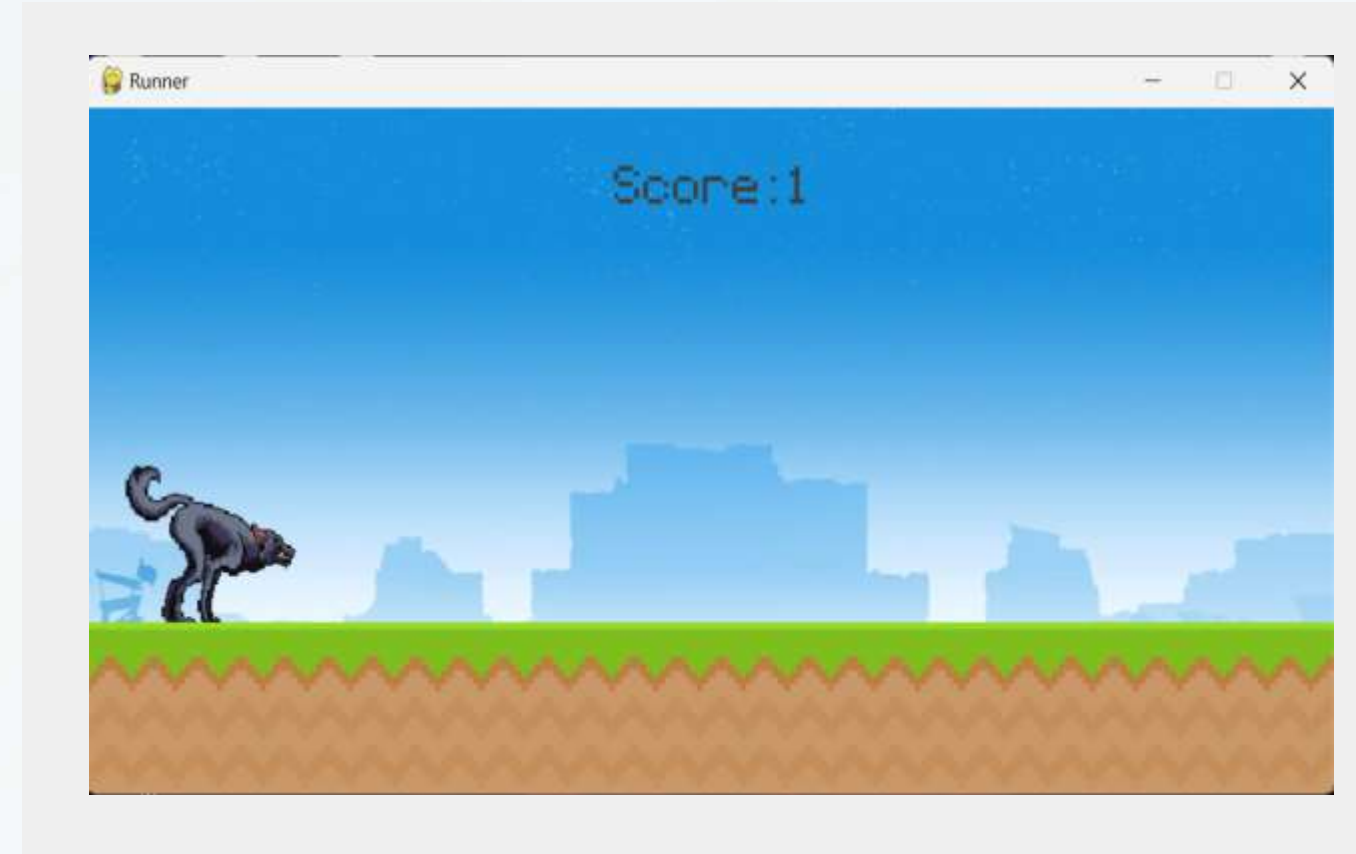


**HEAD MOUSE  
CONTROLLER**

# APPLICATION



**HAND MOUSE  
CONTROLLER**



**GESTURE  
CONTROLLED  
GAME**



**THANK YOU**