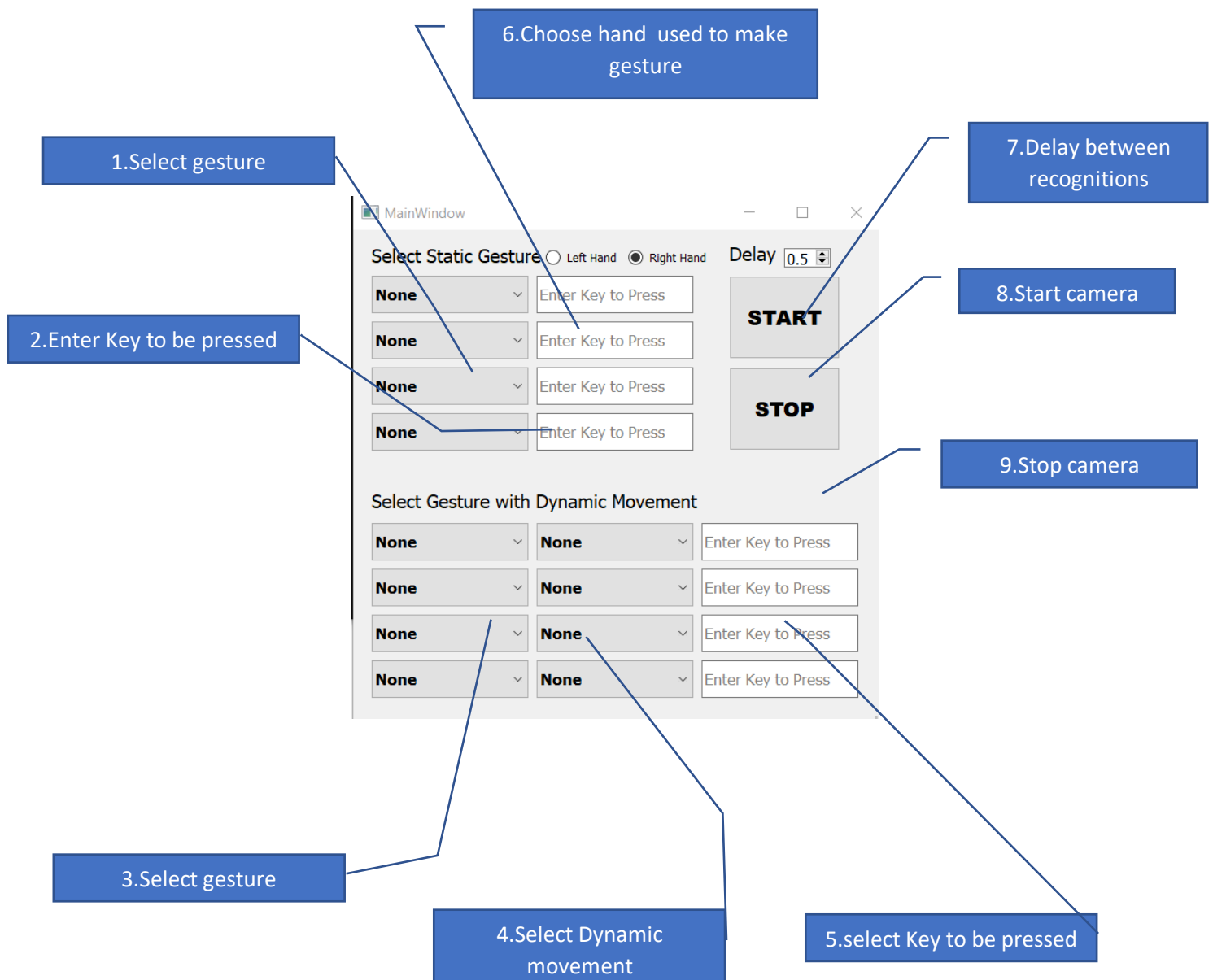


Custom Gesture Control Application Guide

To run :test -> test.exe

- This application performs actions ,on desktop/laptop, chosen by user.
- Actions are infact key presses which are triggered programatically when a certain gesture is detected.
- User has to select a gesture and associate a key press with it.
- Follow the steps given to get started.

➤ Application Overview:



➤ Get Started:

1. Select a Hand Gesture from the list.

2. Enter any key which is supposed to be pressed after gesture from step 1 is detected. eg:

In the given figure, the selected configuration would mean

- When 5 (open hand) is detected, left arrow key will be pressed.
- When 4 is detected, right arrow key will be pressed.
- Recognitions (ie key presses) will have 0.5 sec delay.

The screenshot shows a configuration window titled "Select Static Gesture". It has two radio buttons: "Left Hand" (unselected) and "Right Hand" (selected). To the right is a "Delay" field set to "0.5". Below these are three rows of gesture selection. The first row shows "5" with a hand icon, a dropdown arrow, and a text field containing "left". The second row shows "4", a dropdown arrow, and a text field containing "right". The third row shows "None", a dropdown arrow, and a text field containing "Enter Key to Press". To the right of these rows is a large "START" button.

Note: To generate key press just enter the literal name of key.

3. Same as 1

4. Gesture entered in step 3 will have dynamic movement associated with it. Select that movement.

5. Same as 2. eg:

In the given figure the selected configuration would mean

- When fist (close hand) is detected, nothing will happen. When fist will move left, left arrow key will be pressed.
- Similarly, right arrow key will be pressed when victory gesture is moved right.

The screenshot shows a configuration window titled "Select Gesture with Dynamic Movement". It has three rows. The first row shows "Fist" with a fist icon, a dropdown arrow, "Slide Left", a dropdown arrow, and a text field containing "Left". The second row shows "Victory" with a victory icon, a dropdown arrow, "Slide Right", a dropdown arrow, and a text field containing "Right". The third row shows "None", a dropdown arrow, "None", a dropdown arrow, and a text field containing "Enter Key to Press".

6. Select hand which will be used to perform the gesture.
7. Select delay accordingly i.e. if actions are performed too fast decrease the delay or vice versa.
8. Start the camera feed and start recognition.
9. Stop the camera feed and stop recognition.
10. Make sure the inner palm of your selected hand faces the camera.
11. Though Step 1 and Step 3 are independent of each other, it is better to use either static or dynamic gestures at a one time.

- **Testing Example 1:**

- Enter given configuration in application.
- Open notepad (make sure cursor is blinking in notepad).
- Perform the gestures and see if corresponding letter is typed in notepad.
- Application and Camera feed can be minimized.
- Tip: Make sure your Thumb is properly closed. i.e. bent in front of your

palm whenever needed.



MainWindow

Select Static Gesture ☐ Left Hand ☒ Right Hand Delay 0.5

1, h	a	START STOP
Fist, 🤔	b	
None	Enter Key to Press	
None	Enter Key to Press	

Select Gesture with Dynamic Movement

5, 🤔	Slide Left	c
4	Slide Right	d
None	None	Enter Key to Press
None	None	Enter Key to Press

➤ **Testing Example 2:**

- To control ppt slides.
- Enter below configuration and start.
- (2 is thumb and index finger open)
- Open any presentation and make sure slides can be changed with left and right arrow keys.
- Open Slide Show.
- Perform gesture to change slide.
- Tip:Change delay,if slide changes are too fast or too slow.

The screenshot shows a window titled 'MainWindow' with a configuration interface for static gestures. At the top, there are radio buttons for 'Left Hand' and 'Right Hand', with 'Right Hand' selected. To the right is a 'Delay' field set to '0.5'. Below this, there are four rows of configuration. Each row has a dropdown menu on the left and a text input field on the right. The first row has '1, h' in the dropdown and 'left' in the input. The second row has '2,' in the dropdown and 'right' in the input. The third and fourth rows both have 'None' in the dropdown and 'Enter Key to Press' in the input. To the right of these rows are two large buttons labeled 'START' and 'STOP'.

Static Gesture	Key
1, h	left
2,	right
None	Enter Key to Press
None	Enter Key to Press

- Similarly ,you can try with dynamic gesture too.
(Note: Currently each Dynamic movement needs a unique static gesture ie fist cannot have Slide Left and Slide Right both associated with it.)

The screenshot shows a window titled 'Select Gesture with Dynamic Movement'. It has a similar layout to the static gesture window. There are three rows of configuration. Each row has two dropdown menus on the left and a text input field on the right. The first row has 'Fist, 🤔' and 'Slide Left' in the dropdowns, and 'Left' in the input. The second row has 'Victory, ✌' and 'Slide Right' in the dropdowns, and 'Right' in the input. The third row has 'None' and 'None' in the dropdowns, and 'Enter Key to Press' in the input.

Dynamic Gesture	Dynamic Movement	Key
Fist, 🤔	Slide Left	Left
Victory, ✌	Slide Right	Right
None	None	Enter Key to Press