**MANUAL - VIRTUAL MOUSE**

* **VOICE ASSISTANT- PROTON**

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| **VOICE GESTURE** | **DESCRIPTION** | **OUTPUT** |
| **Launch Gesture Recognition** | **SAY: “Proton Launch Gesture Recognition”**  Turns on webcam for hand gesture recognition. |  |
| **Google Search** | **SAY: “Proton search {text\_you\_wish\_to\_search}”**  Opens a new tab on Chrome Browser if it is running, else opens a new window. Searches the given text on Google. |  |
| **Find a Location on Google Maps** | **SAY: “Proton Find a Location”**  Will ask the user for the location to be searched.  **SAY: “{Name\_Location\_you\_wish\_to\_find}”**  Will find the required location on Google Maps in a new Chrome tab. |  |
| **File Navigation** | **SAY: “Proton list files / Proton list”**  Will list the files and respective file\_numbers in your Current Directory (by default C:)  **SAY: “Proton open {file\_number}”**  Opens the file/directory corresponding to the specified file\_number.  **SAY: “Proton go back / Proton back”**  Changes the Current Directory to Parent Directory and lists the files. |  |
| **Current Date** | **SAY: “Proton what is today's date / Proton date”**  Returns current date |  |
| **Current Time** | **SAY: “Proton what is the time / Proton time”**  Returns the current time. |  |
| **Copy and Paste** | **SAY: “Proton Copy”**  Copies the selected text to the clipboard.  **SAY: “Proton Paste”**  Pastes the copied text. |  |
| **Sleep Proton** | **SAY: “Proton bye”**  Pauses voice command execution till the assistant is woken up. |  |
| **Wake up Proton** | **SAY: “Proton wake up”**  Resumes voice command execution. |  |
| **Exit** | **SAY: “Proton Exit”**  Terminates the voice assistant thread. GUI window needs to be closed manually. |  |

* **FOR HAND GESTURES**

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| **GESTURE** | **DESCRIPTION** | **SYMBOL** |
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| **Neutral Gesture** | Used to halt/stop the execution of the current gesture.  **Procedure:**  Show a palm on the camera, which halts the execution. |  |
| **Move Cursor** | The cursor is assigned to the midpoint of the index and middle fingertips.  This gesture moves the cursor to the desired location. The speed of the cursor movement is proportional to the speed of the hand.  **Procedure:**  Open the first two fingers (showing a “V” sign) on the camera, and it will help to move the camera. |  |
| **Left Click** | Gesture for single left click.  **Procedure:**  Lower down the forefinger, to perform the left-click option. |  |
| **Right Click** | Gesture for single right-click.  **Procedure:**  Lower down the middle finger, to perform the right-click option. |  |
| **Double Click** | Gesture for double click.  **Procedure:** Join both the fore and middle finger and show on the camera to perform a double click on an icon. |  |
| **Drag and drop** | Gesture for drag and drop functionality. Can be used to move/transfer files from one directory to other.  **Procedure:**  Open a folder from where to select a file, and open another location where to paste that file. Close the fist and select the file and hold and move to the location of where to paste and then open the fist and show a neutral gesture. |  |
| **Multiple Item Selection** | Gesture to select multiple items.  **Procedure:**  Close the fist and move around the fist on the screen to select the multiple files. |  |
| **Volume Control** | Dynamic Gestures for Volume control. The rate of increase/decrease of volume is proportional to the distance moved by the pinch gesture from the start point.  **Procedure:**  Open Volume settings in the system, using the move cursor gesture, and then join the forefinger and the thumb and move upwards or downwards to increase or decrease the volume. |  |
| **Brightness Control** | Dynamic Gestures for Brightness control. The rate of increase/decrease of brightness is proportional to the distance moved by the pinch gesture from the start point.  **Procedure:**  Open the Brightness settings in the system, using the move cursor gesture, and then join the fore finger and the thumb and move upwards or downwards to increase or decrease the brightness. |  |

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**Group 1- Major 2- Virtual Mouse**

**B.Tech LLB- Cyber Law- 8th Sem**