# Brush

## Introduction

MediaPipe is an open-source data stream processing machine learning application development framework developed by Google. It is a graph-based data processing pipeline used to build data sources in various forms, such as video, audio, sensor data, and any time series data. MediaPipe is cross-platform and can run on embedded platforms (Raspberry Pi, etc.), mobile devices (iOS and Android), workstations and servers, and supports mobile GPU acceleration. MediaPipe provides cross-platform, customizable ML solutions for real-time and streaming media.

The core framework of MediaPipe is implemented in C++ and provides support for languages such as Java and Objective C. The main concepts of MediaPipe include packets, streams, calculators, graphs, and subgraphs.

Features of MediaPipe:

- End-to-end acceleration: built-in fast ML inference and processing can be accelerated even on ordinary hardware.

- Build once, deploy anywhere: unified solution for Android, iOS, desktop/cloud, web and IoT.

- Ready-to-use solution: cutting-edge ML solution that demonstrates the full capabilities of the framework.

- Free and open source: framework and solution under Apache2.0, fully extensible and customizable.

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**Note: The AI camera in this case has no computing power bonus, it is called as a normal camera!**

Source code location: /home/pi/yahboomcar_ws/src/yahboomcar_mediapipe/scripts

```
When the index finger and middle finger of your right hand are combined, it is in
the selection state, and a color selection box pops up. When the two fingertips
move to the corresponding color position, the color is selected (black is the
eraser); when the index finger and middle finger are separated, it is in the
drawing state, and you can draw anything on the drawing board.
```

```
If you want to exit the program, you can press q in the preview window or press
Ctrl+C in the terminal to terminate the program!
```

```
cd /home/pi/yahboomcar_ws/src/yahboomcar_mediapipe/scripts
python3 04_VirtualPaint_CSI.py
```