Lesson 26 PS2 Joystick

Overview

In this lesson, we will learn the usage of joystick. We program the Raspberry Pi to detect the state of joystick.

Requirement

- 1* Raspberry Pi
- 1* ADC0832
- 1* PS2 Joystick
- 1* Breadboard
- Several Jumper wires

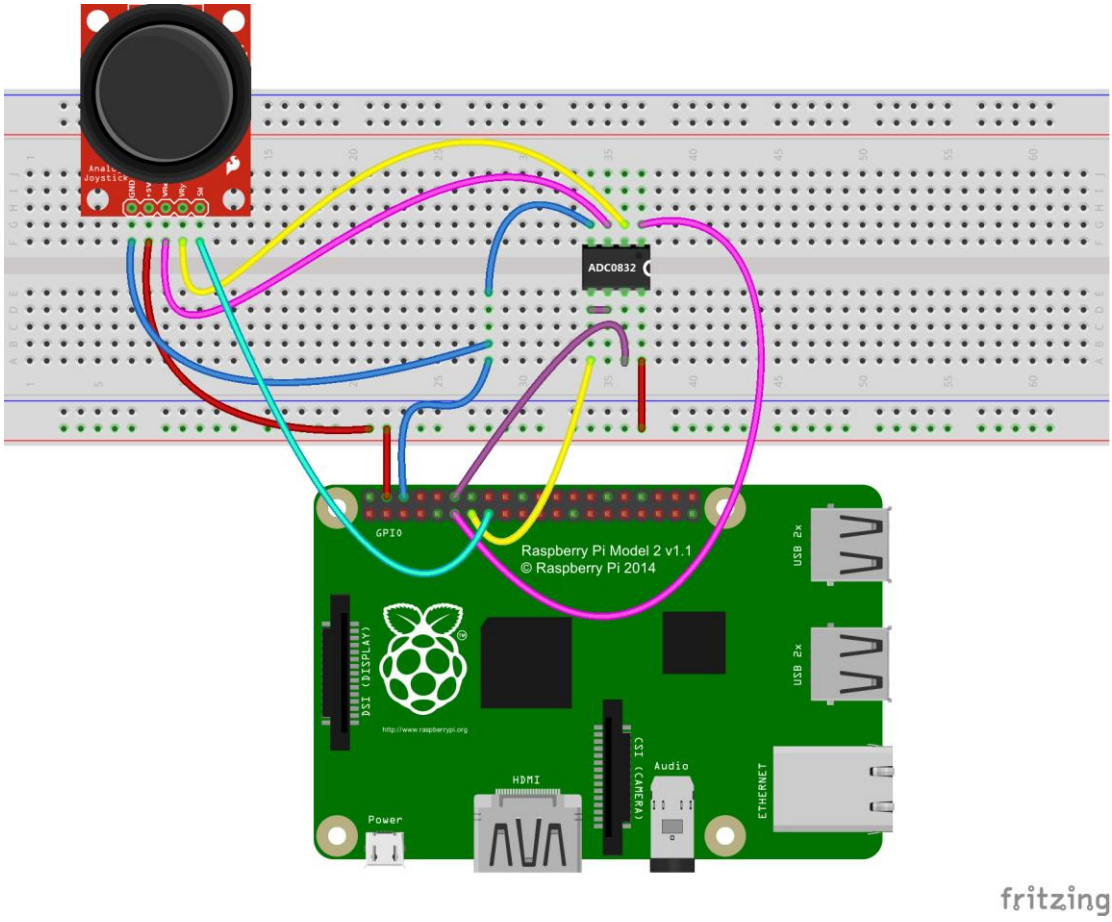
Principle

A joystick is an input device consisting of a stick that pivots on a base and reports its angle or direction to the device it is controlling. A joystick, also known as the control column, is the principal control device in the cockpit of many civilian and military aircraft, either as a center stick or side-stick. It often has supplementary switches to control various aspects of the aircraft's flight.

Joysticks are often used to control video games, and usually have one or more push-buttons whose state can also be read by the computer. A popular variation of the joystick used on modern video game consoles is the analog stick. Joysticks are also used for controlling machines such as cranes, trucks, underwater unmanned vehicles, wheelchairs, surveillance cameras, and zero turning radius lawn mowers. Miniature finger-operated joysticks have been adopted as input devices for smaller electronic equipment such as mobile phones.

Procedures

1. Build the circuit



2. Program

C user:

2.1 Edit and save the code with vim or nano.

(Code path: /home/Adeept_Ultimate_Starter_Kit_C_Code_for_RPi/26_ps2Joystick/joystick.c)

2.2 Compile the program

```
$ gcc joystick.c -o joystick -lwiringPi
```

2.3 Run the program

```
$ sudo ./joystick
```

Python user:

2.1 Edit and save the code with vim or nano.

(Code path: /home/Adeept_Ultimate_Starter_Kit_Python_Code_for_RPi/26_joystick.py)

2.2 Run the program

```
$ sudo python 26_joystick.py
```

Press Enter, you should see that the joystick state information displayed on the terminal.