#### **VEYE-MIPI-290 Introduction**

VEYE-MIPI-290 is a is a special camera module which is compatible with RASPBERRY PI.

She use sony STARVIS sensor——IMX290 and has excellent ISP functions Build-in. The output format is stanard UYVY stream. It is very easy to use it with RASPBERRY PI.

Of course, she also has some subtle differences from the official version. She only support 1080p

resolution, and i2c cmd is different.

So I give you some tools as described below, and of course I give you the source code.

## **Raspberry Pi Models**

Theoretically, VEYE support all Raspberry Pi.

For performance reasons, I recommend you use 3 or 3+ Version.

#### **Hardware Connection**

VEYE-MIPI-290 cable is compatible with Raspberry Pi by using a small Adapter Board, which is always transferred with VEYE-MIPI-290.

Due to the high power consumption of the camera board, an additional 5V supply is required.

- 1. FPC cable.
- 2. 5V-DC.

White: 5V, Black: GND.



# RaspberryPl System Config

- Install RaspberryPI
   Install raspberrypi guide
- Config RaspberryPI
- 1. Camera and I2C

1 sudo raspi-config

```
Raspberry Pi Software Configuration Tool (raspi-config)
1 Change User Password
                                Change password for the default u
2 Hostname
                                Set the visible name for this Pi
3 Boot Options
                                Configure options for start-up
                             Set up language and regional sett
4 Localisation Options
5 Interfacing Options
                               Configure connections to peripher
                              Configure overclocking for your P
6 Overclock
7 Advanced Options
                               Configure advanced settings
8 Update
                                Update this tool to the latest ve
9 About raspi-config
                                Information about this configurat
                <Select>
                                            <Finish>
```

Select 5, Enalbe Camera and I2C, then reboot.

#### **Software Brief**

There are two Untils of Software, the Media Untils and I2C Untils. Media Untils provides media related tools. I2C Untils is a Shell Script, by which you can set many configurations of the camera.

Both is open source.

#### **Media Untils Brief**

- veye\_raspipreview
   ./veye\_raspipreview -t 20000
   Privew,20s video real-time display to HDMI output.
- veye\_raspivid
   ./veye\_raspivid -t 5000 -o ~/test.h264

   Implement H.264 format encoding and record for 5 seconds, Record the stream data to file ~/test.h264.
- veye\_raspividyuv
   ./veye\_raspividyuv -t 200 -o /dev/shm/test.yuv
   Record UYVY data to file /dev/shm/test.yuv, time is 200ms.
- veye\_raspistill
   Capture a image and save it as jpeg file.DEVELOPING.

### **I2C Untils**

HOWTO: I2C cmd scripts usage of VEYE-MIPI-290 on RaspberryPI Platform

# **Documents and Source Code**

Docs and Source Code