USB Camera Common Manual

CONNECT TO PC

1. Install camera software. Download the amcap software and install it on your computer.
2. Connect the camera to PC. Open the Amcap software. The window will show the image captured by camera.

Note: The software we provide is just used for testing.

CONNECT TO RASPBERRY PI

1. Install image for Raspberry Pi, we take Raspbian as example.
2. Connect USB camera to Raspberry. And we use mjpg_streamer to take the video.
3. Check whether the camera is connected properly and recognized:

   ls /dev

4. If Video0 is listed with the command, it means that the camera is recognized. If you cannot find the device Video0, please re-plug the camera and try again.

4. Install necessary libraries:

   sudo apt-get install libjpeg8-dev

   sudo apt-get install libv4l-dev

5. Download the software mjpeg-streamer, and copy it to the boot of TF card. Power on your Raspberry Pi and upzip it to /home/pi

   tar zxvf /boot/mjpeg-streamer-master.tar

6. Enter the corresponding folder which you unzip

   cd mjpg-streamer-master/mjpg-streamer-experimental/

```
pi@raspberrypi:~ $ cd mjpg-streamer-master/mjpg-streamer-experimental/
pi@raspberrypi:~/mjpg-streamer-master/mjpg-streamer-experimental $ ls
_build              input_uvc.so            output_file.so  start.sh
cmake               LICENSE                 output_http.so  TODO
CMakeLists.txt      makedeb.sh              output_rtsp.so  utils.c
Dockerfile          Makefile                output_udp.so   utils.h
docker-start.sh     mjpg_streamer           plugins         www
input_file.so       mjpg_streamer.c         postinstall.sh
input_http.so       mjpg_streamer.h         README.md
input_raspicam.so   mjpg_streamer@.service  scripts
```

7. Execute the command:

./mjpg_streamer -i "./input_uvc.so -r 800x600" -o "output_http.so -w ./www"

```
pi@raspberrypi:~/mjpg-streamer-master/mjpg-streamer-experimental $ ./mjpg_streamer -i "./input_uvc.so -r 800x600" -o "./output_http.so -w ./www"
MJPG Streamer Version.: 2.0
 i: Using V4L2 device.: /dev/video0
 i: Desired Resolution: 800 x 600
 i: Frames Per Second.: -1
 i: Format............: JPEG
 i: TV-Norm...........: DEFAULT
 i: The specified resolution is unavailable, using: width 640 height 480 instead
UVCIOC_CTRL_ADD - Error at Pan (relative): Inappropriate ioctl for device (25)
UVCIOC_CTRL_ADD - Error at Tilt (relative): Inappropriate ioctl for device (25)
UVCIOC_CTRL_ADD - Error at Pan Reset: Inappropriate ioctl for device (25)
UVCIOC_CTRL_ADD - Error at Tilt Reset: Inappropriate ioctl for device (25)
UVCIOC_CTRL_ADD - Error at Pan/tilt Reset: Inappropriate ioctl for device (25)
UVCIOC_CTRL_ADD - Error at Focus (absolute): Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at Pan (relative): Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at Tilt (relative): Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at Pan Reset: Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at Tilt Reset: Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at Pan/tilt Reset: Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at Focus (absolute): Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at LED1 Mode: Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at LED1 Frequency: Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at Disable video processing: Inappropriate ioctl for device (25)
UVCIOC_CTRL_MAP - Error at Raw bits per pixel: Inappropriate ioctl for device (25)
 o: www-folder-path......: ./www/
 o: HTTP TCP port........: 8080
 o: HTTP Listen Address..: (null)
 o: username:password....: disabled
 o: commands.............: enabled
```

8. Open browser and enter the IP address of your Raspberry Pi

for example: 192.168.1.63:8080

You need to change "192.168.1.63" to the exact IP address of your Raspberry Pi. Then you could see that the Stream will display the image captured by camera.