USB摄像头

PIBOT机器人小车可以接入 USB摄像头作为监控摄像头，可以实时传输视频流

- 查看 USB摄像头节点 `ls /dev/video* -al`

```
pibot@pibot-desktop:~$ ls -al /dev/video*
crw-rw----+ 1 root video 81, 0 5月  20 00:06 /dev/video0
```

- 修改节点名称

```
roscd pibot/launch/
vi usb_camera.launch
```

```
<launch>
  <node name="usb_cam" pkg="usb_cam" type="usb_cam_node" output="screen" >
    <param name="video_device" value="/dev/video0" />
    <param name="image_width" value="640" />
    <param name="image_height" value="480" />
    <param name="pixel_format" value="yuyv" />
    <param name="camera_frame_id" value="usb_cam" />
    <param name="io_method" value="mmap"/>
  </node>

<node name="pub_compressed_image" pkg="image_transport" type="republish" args="raw in:=/usb_cam/image_raw compressed
out:=/usb_cam/image_compressed">
    <remap from="/usb_cam/image_compressed/compressed" to="/compressed_image"/>
  </node>
</launch>
```

- 启动 USB摄像头

```
roslaunch pibot usb_camera.launch
```

```
* /rosdistro: kinetic
* /rosversion: 1.12.14
* /usb_cam/camera_frame_id: usb_cam
* /usb_cam/image_height: 480
* /usb_cam/image_width: 640
* /usb_cam/io_method: mmap
* /usb_cam/pixel_format: yuyv
* /usb_cam/video_device: /dev/video0

NODES
  /
    pub_compressed_image (image_transport/republish)
    usb_cam (usb_cam/usb_cam_node)

auto-starting new master
process[master]: started with pid [18434]
ROS_MASTER_URI=http://192.168.12.1:11311

setting /run_id to 0d622ed0-7a54-11e9-a2f8-b827eb3bc783
process[rosout-1]: started with pid [18461]
started core service [/rosout]
process[usb_cam-2]: started with pid [18474]
process[pub_compressed_image-3]: started with pid [18479]
[ INFO] [1558283706.685912147]: using default calibration URL
[ INFO] [1558283706.686227615]: camera calibration URL: file:///home/pibot/.ros/camera_info/head_camera.yaml
[ INFO] [1558283706.686465688]: Unable to open camera calibration file [/home/pibot/.ros/camera_info/head_camera.yaml]
[ WARN] [1558283706.686569490]: Camera calibration file /home/pibot/.ros/camera_info/head_camera.yaml not found.
[ INFO] [1558283706.687040376]: Starting 'head_camera' (/dev/video0) at 640x480 via mmap (yuyv) at 30 FPS
[ WARN] [1558283708.986417458]: unknown control 'white_balance_temperature_auto'

[ WARN] [1558283709.011494333]: unknown control 'focus_auto'
```
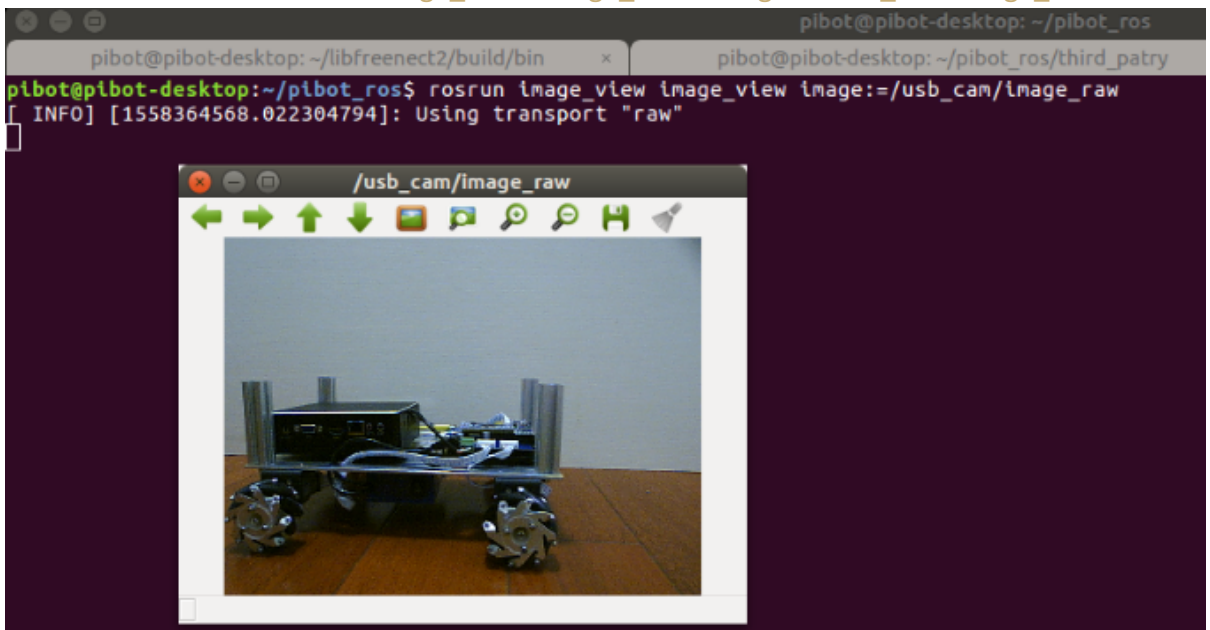
- 查看视频流
  - 电脑端（多机通讯）`rosrun image_view image_view image=:/usb_cam/image_raw`

  - 手机app，启动app输入小车主机ip建立连接后可以直接看到视频流

READ QRCODE   CONNECT

☐ Show advanced options

CANCEL