

17. Feature point tracking

17.1. Use

Source code launch file path: /opt/ros/noetic/share/opencv_apps/launch

Step 1: Start the camera

```
roslaunch astra_visual opencv_apps.launch img_flip:=false
```

- `img_flip` parameter: whether the image needs to be flipped horizontally, the default is false.

The `[usb_cam-test.launch]` file opens the `[web_video_server]` node by default, and you can directly use the `[IP:8080]` web page to view images in real time.

Step 2: Start the corner detection function of `Opencv_apps`

```
roslaunch opencv_apps goodfeature_track.launch # Feature point tracking
```

Each functional case will have a parameter `[debug_view]`, Boolean type, whether to use `Opencv` to display images, which is displayed by default.

If no display is required, set it to `[False]`, for example

```
roslaunch opencv_apps contour_moments.launch debug_view:=False
```

However, after starting in this way, some cases cannot be displayed in other ways, because in the source code, some `[debug_view]` is set to `[False]`, which will turn off image processing.

17.2. Display method

- `rqt_image_view`

Enter the following command to select the corresponding topic

```
rqt_image_view
```

- `opencv`

The system displays it by default, no need to do anything.

- Web viewing

(Same as under LAN) Enter IP+port in the browser, for example:

```
192.168.2.116:8080
```

For specific IP, use your current virtual machine IP.

17.3. Effect display

You can see an adjustable window appearing on the screen, and object feature points appearing at the same time.

