

9、 Target tracking algorithm

Locating objects in consecutive frames of a video is called tracking. In OpenCV, you can use traditional target tracking algorithms (such as mean tracking, Kalman filtering, etc.) Or target trackers based on deep learning (such as MOSSE, CSRT, etc.) for target tracking. Deep learning object trackers generally perform better in accuracy and robustness

9.1、 Use

Source code launch file path: ~/jetcobot_ws/src/opencv_apps/launch

Step 1: Start the camera

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

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

Step 2: Start the corner detection function of Opencv_apps

```
roslaunch opencv_apps camshift.launch                # target tracking
algorithm
```

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.

9.2、 Display method

- rqt_image_view

Enter the following command to select the corresponding topic

```
rqt_image_view
```

- opencv

The system displays it by default and no processing is required.

9.3、 Effect display

You can see an adjustable window appear on the screen, followed by a red frame.

