

Face detection algorithm

1. Use

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

Step 1: Start the camera

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

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

`[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 face_detection.launch # Face detection
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.

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.

3. Effect display

After successfully running the code, you can see the following rendering.

