

1.1.2 OpenCV image read and display

1) Reading of images:

`img = cv2.imread('yahboom.jpg', 0)` The first parameter is the path of the image, and the second parameter is how to read the image.

`cv2.IMREAD_UNCHANGED`: Keep the original format, can be represented by parameter -1;

`cv2.IMREAD_COLOR`: Reading pictures in grayscale, can be represented by parameter 0;

`cv2.IMREAD_GRAYSCALE`: Reading pictures in color mode, can be represented by 1, default value;

`cv2.IMREAD_UNCHANGED`: Read pictures and include its alpha channel, can be represented by 2.

2) Displaying of image:

Code path:

[/home/pi/Yahboom_Project/1.OpenCV_course/01Getting_started/OpenCV/01_OpenCV_image_read_display.ipynb](#)

#bgr8 to jpeg format

```
import enum
import cv2
```

```
def bgr8_to_jpeg(value, quality=75):
    return bytes(cv2.imencode('.jpg', value)[1])
```

The image component in jupyterLab shows the read image

```
import ipywidgets.widgets as widgets
image_widget = widgets.Image(format='jpg', width=800, height=800)
display(image_widget)

image_widget.value = bgr8_to_jpeg(img)
```

