2. OpenCV image reading and display

2.1. Image reading

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 unchanged, -1;

cv2.IMREAD_GRAYSCALE: Read the image in grayscale mode, which can be represented by 0;

cv2.IMREAD_COLOR: Read a color image, which can be represented by 1; the default value

cv2.IMREAD_UNCHANGED: Read an image and include its alpha channel, which can be represented by 2.

2.2. Image display

cv.imshow('frame', frame): Open a window named frame and display frame data (image/video data)

Parameter meaning:

The first parameter indicates the name of the window to be created

The second parameter indicates the image to be displayed

2.3. Actual effect display

Code path:

/home/pi/DOGZILLA_Lite_class/4.Open Source CV/A.introduction/Introduction_to_OpenCV/02_OpenCV_Img_Read_Display.ipynb

```
import cv2

img = cv2.imread('yahboom.jpg', 1)
#cv2.imshow('image', img)
#cv2.waitKey (0)
```

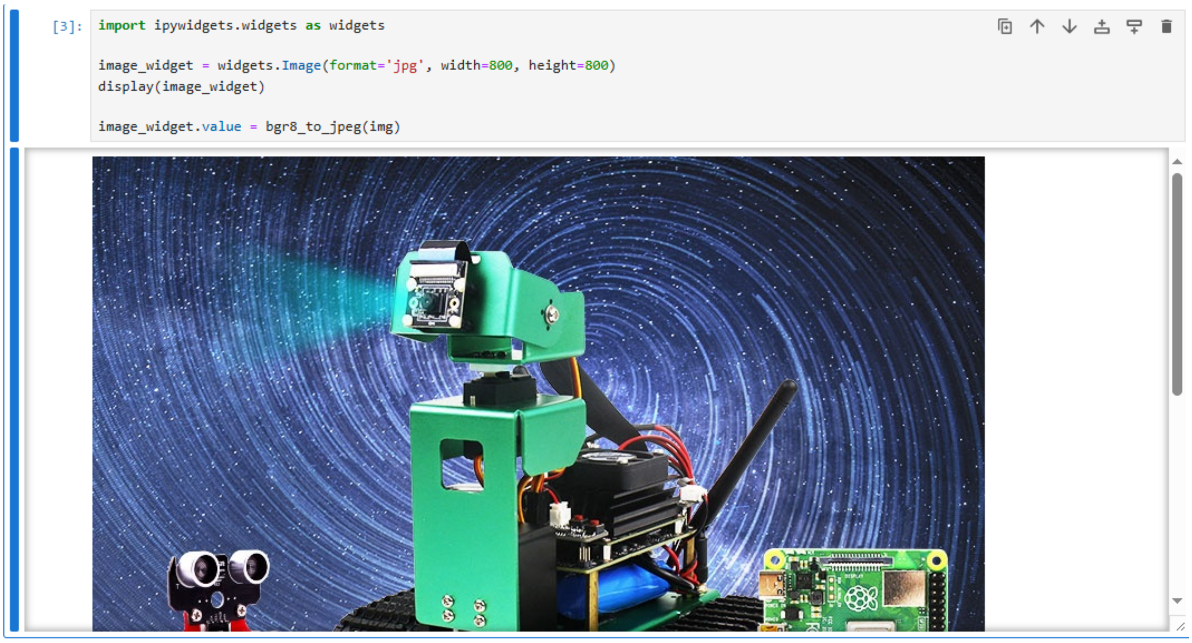
```
#bgr8转jpeg格式
import enum
import cv2

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

```
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)
```



```
[3]: 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)
```