1.1.4 OpenCV image quality
Path: /home/jetson/Dofbot\4.opencv\1.OpenCV_Getting_started
03_OpenCV_image_quality.ipynb

1) Compression method
cv2.imwrite('yahboomTest.jpg', img, [cv2.IMWRITE_JPEG_QUALITY, 50])
cv2.CV_IMWRITE_JPEG_QUALITY: Set the picture(.jpeg or .jpg) quality, value range is
0--100 (the larger the value, the higher the quality). Default value is 95
cv2.CV_IMWRITE_WEBP_QUALITY: Set the picture(.web) quality, value range is
0--100 (the larger the value, the higher the quality).
cv2.CV_IMWRITE_PNG_COMPRESSION: Set the picture(.png) quality, value range is
0--100 (the larger the value, the higher Compression ratio). Default value is 3.

```
import cv2
img = cv2.imread('yahboom.jpg',1)
cv2.imwrite('yahboomTest.jpg', img, [cv2.IMWRITE_JPEG_QUALITY, 50])
#1M 100k 10k 0-100 Lossy compression
```

```
# 1 Lossy compression, 2 Transparency attribute
import cv2
img = cv2.imread('yahboom.jpg',1)
cv2.imwrite('yahboomTest.png', img, [cv2.IMWRITE_PNG_COMPRESSION,0])
# jpg 0 High compression ratio 0-100    png 0 Low compression ratio 0-9
```

```
#bgr8 to jpeg format
import enum
import cv2

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

```
import ipywidgets.widgets as widgets

image_widget1 = widgets.Image(format='jpg', )
image_widget2 = widgets.Image(format='jpg', )
# create a horizontal box container to place the image widget next to eachother
image_container = widgets.HBox([image_widget1, image_widget2])

# display the container in this cell's output
display(image_container)

img1 = cv2.imread('yahboomTest.jpg',1)
img2 = cv2.imread('yahboomTest.png',1)
image_widget1.value = bgr8_to_jpeg(img1)
```

```
image_widget2.value = bgr8_to_jpeg(img2)
```