

## Picture cut

First read the image, and then get the pixel area in the array.

In the following code, select the shape area X: 300-500 Y: 500-700. Because the image size is 800\*800, the selected area should not exceed this resolution.

Code path:

```
~/dofbot_ws/src/dofbot_opencv/scripts/2.Transform/02_cut_pic.ipynb
```

```
import cv2
img = cv2.imread('yahboom.jpg', 1)
dst = img[500:700,300:500] #Select a rectangular area X: 300-500    Y: 500-700
#cv2.imshow('image',dst)

#cv2.waitKey(0)
```

The following will show the comparison of the two compressed images in the jupyterLab.

```
#bgr8转jpeg格式
import enum
import cv2
def bgr8_to_jpeg(value, quality=75):
    return bytes(cv2.imencode('.jpg', value)[1])
```

Below are the before and after images:

```
import ipywidgets.widgets as widgets
image_widget1 = widgets.Image(format='jpg', )
image_widget2 = widgets.Image(format='jpg', )
# display the container in this cell's output
display(image_widget1)
display(image_widget2)
img1 = cv2.imread('yahboom.jpg',1)

image_widget1.value = bgr8_to_jpeg(img1) #The original image
image_widget2.value = bgr8_to_jpeg(dst)  #The image after cutting
```

After the program is run, we can see that some parts have been cut out, as shown in the following figure.

