In [1]:
```
#!/usr/bin/env python
# coding: utf-8
import Arm_Lib
import cv2 as cv
import threading
from time import sleep
import ipywidgets as widgets
from IPython.display import display
from single_garbage_identify import single_garbage_identify
```

In [2]:
```
single_garbage = single_garbage_identify()
model = "General"
```

```
WARNING:tensorflow:From /home/dofbot/Dofbot/6.AI_Visual/garbage_identify.py:4
1: The name tf.keras.backend.get_session is deprecated. Please use tf.compat.v
1.keras.backend.get_session instead.

/home/dofbot/dofbot_ws/src/dofbot_garbage_yolov4_tiny/model_data/garbage.h5 mo
del, anchors, and classes loaded.
```

In [3]:
```
button_layout      = widgets.Layout(width='320px', height='60px', align_self=
output = widgets.Output()
# Exit
exit_button = widgets.Button(description='Exit', button_style='danger', layou
imgbox = widgets.Image(format='jpg', height=480, width=640, layout=widgets.La
controls_box = widgets.VBox([imgbox, exit_button], layout=widgets.Layout(alig
```

In [4]:
```
def exit_button_Callback(value):
    global model
    model = 'Exit'
    with output: print(model)
exit_button.on_click(exit_button_Callback)
```

In [5]:
```
def camera():
    # Open camera
    capture = cv.VideoCapture(0)
    # Loop execution when the camera is opened normally
    while capture.isOpened():
        try:
            _, img = capture.read()
            img = cv.resize(img, (640, 480))
            img = single_garbage.single_garbage_run(img)
            if model == 'Exit':
                cv.destroyAllWindows()
                capture.release()
                break
            imgbox.value = cv.imencode('.jpg', img)[1].tobytes()
        except KeyboardInterrupt:capture.release()
```

In [6]:
```
# Please place the building block in the center of the cross (the picture is
display(controls_box,output)
threading.Thread(target=camera, ).start()
```

In [ ]:

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