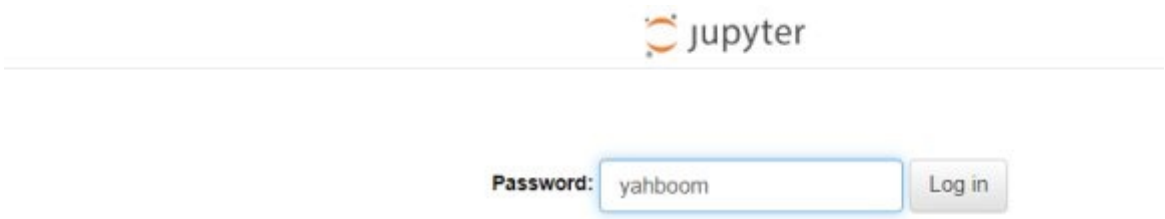
Reading of servo angle

1. Purpose of the experiment

Realize the reading of the servo angle.

2. Experimental path source code

Enter the dog's system, end the dog program, enter "ip (ip is the dog's ip): 8888" in the browser, enter the password "yahboom"



and log in to the path of **cd ~/DOGZILLA_Lite_class/2.Base Control/11.Read Servo** and run **Read Servo.ipynb** .

3. Experimental Phenomenon

After running the code, you can print out all the current servo angles of the dog

```
[1]: from xgolib import XGO
     import time
     import ipywidgets as widgets
     from IPython.display import display
     from ipywidgets import interact, widgets, Button, VBox, IntSlider

     dog = XGO("xgolite")
```

```
[2]: while True:
         print(dog.read_motor())
         time.sleep(1)
```

```
[4.82, 39.18, 0.82, 4.35, 39.18, 1.29, 3.88, 45.45, 1.06, 3.88, 45.45, 0.12, -0.76, 60.0, -90.0]
[4.82, 39.18, 0.82, 4.35, 39.18, 1.29, 3.88, 45.45, 1.06, 3.88, 45.45, 0.12, -0.76, 60.0, -90.0]
```

4. Main source code analysis

```
while True:
    print(dog.read_motor())
    time.sleep(1)
```

Through the API interface, read the underlying IMU data and print it out.

read_motor() reads the angles of 15 servos. If the reading is successful, it returns a list of 15, corresponding to the servo angles numbered [11,12,13,21,22,23,31,32,33,41,42,43,51,52,53]. If the reading fails, it returns an empty list.

The servo ID number is located at the dog's position as shown in the figure: