Reading Data

1.1 Experimental purpose

In this course, we will learn how to control dogzilla motion and body posture through jypyterlab upper computer.

1.2 Experimental preparation

Since the camera is required for the upper computer control, to avoid conflicts, please close the app control program or other programs that occupy the camera before running this program.

1.3 Experimental process

Open the jupyterlab client and find the code path:

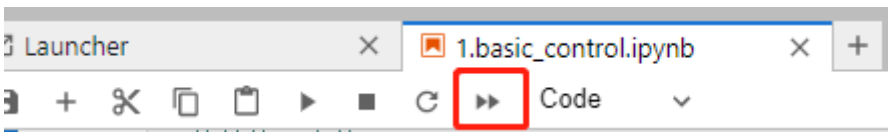
```
DOGZILLA/Samples/2_Control/9.dog_Ctrl.ipynb
```

By default g_ENABLE_CHINESE=False, if you need to display Chinese, please set g_ENABLE_CHINESE=True.

```
# 中文开关，默认为英文 Chinese switch. The default value is English
g_ENABLE_CHINESE = False

Name_widgets = {
    'Stop': ("Stop", "停止"),
    'Forward': ("Forward", "前进"),
    'Backward': ("Backward", "后退"),
    'Left': ("Left", "左平移"),
    'Right': ("Right", "右平移"),
    'TurnLeft': ("TurnLeft", "向左转"),
    'TurnRight': ("TurnRight", "向右转"),
    'Normal': ("Normal", "默认步频"),
    'Slow': ("Slow", "慢速步频"),
    'High': ("High", "高速步频"),
    "Step":("Step", "步伐宽度"),
    'Lie_Down': ("Lie_Down", "趴下"),
    'Stand_Up': ("Stand_Up", "站起"),
    'Crawl': ("Crawl", "匍匐前进"),
    'Turn_Around': ("Turn_Around", "转圈"),
    'Mark_Time': ("Mark_Time", "原地踏步"),
    'Squat': ("Squat", "蹲起"),
    'Turn_Roll': ("Turn_Roll", "转动Roll"),
    'Turn_Pitch': ("Turn_Pitch", "转动Pitch"),
    'Turn_Yaw': ("Turn_Yaw", "转动Yaw"),
    '3_Axis': ("3_Axis", "三轴联动"),
    'Pee': ("Pee", "撒尿"),
    'Sit_Down': ("Sit_Down", "坐下"),
    'Wave_Hand': ("Wave_Hand", "招手"),
    'Stretch': ("Stretch", "伸懒腰"),
    'Wave_Body': ("Wave_Body", "波浪"),
    'Swing': ("Swing", "左右摇摆"),
    'Pray': ("Pray", "求食"),
    'Seek': ("Seek", "找食物"),
    'Handshake': ("Handshake", "握手"),
    'Play_Ball':("Play_Ball", "踢球"),
    'Rotation': ("Rotation", "动作轮播"),
    'Reset': ("Reset", "恢复初始姿态"),
    'Translation_X': ("Translation_X", "前后平移"),
    'Translation_Y': ("Translation_Y", "左右平移"),
    'Translation_Z': ("Translation_Z", "身高调节"),
    'Attitude_roll': ("Attitude_roll", "滚转角"),
    'Attitude_pitch': ("Attitude_pitch", "俯仰角"),
    'Attitude_yaw': ("Attitude_yaw", "偏航角"),
    'Close_Camera': ("Close_Camera", "关闭摄像头")
}
```

Click the following icon to run all cells, and then pull to the bottom to see the generated controls.



The left side is the camera display screen, and the right side is the control for controlling the robot dog. The function is the same as the previous control content, so it will not be described here.

The red button at the bottom turns off the camera process. To end the program, please click turn off the camera. Otherwise, the camera may be occupied all the time and other programs cannot use the camera.

1.4 Summary

In this course, we use JupyterLab control the movement and action of dogzilla, and the motion or body posture of the robot dog can be controlled to make the camera move the picture. When the program is finished, you need to click the close camera button, otherwise other programs will report an error when using the camera.