

Lesson 5 Use Command to Call Action Group

1. Realization Purpose

In addition to PC software, you can also use command line in terminal to call action group .

Note: Action group files should be saved under the directory
“/home/pi/ArmPi_mini/ ActionGroups”.

Click  icon to open file manger. Then enter the directory
“/home/pi/ArmPi_mini/ActionGroups” and ensure the action group you want to call
in this directory.

2. Call Action Group

1) Connect to ArmPi mini system desktop via VNC, and click  to
open terminal.

2) Enter command “cd ArmPi_mini/HiwonderSDK/” and press “Enter” to
access to the directory of game programs.

```
pi@raspberrypi:~ $ cd ArmPi_mini/HiwonderSDK/
```

3) Enter command “sudo python3 ActionGroupControlDemo.py”, and
press “Enter” to start game.

```
pi@raspberrypi:~/ArmPi_mini/HiwonderSDK $  
sudo python3 ActionGroupControlDemo.py
```

At this time, robot arm will run No.1 and No.2 action group. After game, the
terminal will automatically close the program.

3. Modify Action Group

3.1 Call a single action group

You can modify program to control robot arm to execute a single action group.

The specific operation steps are as follow.

1) Connect to ArmPi mini system desktop via VNC, and click  to open terminal.

2) Enter command “cd ArmPi_mini/HiwonderSDK/” and press “Enter” to access to the directory of game programs.

```
pi@raspberrypi:~ $ cd ArmPi_mini/HiwonderSDK/
```

3) Enter command “sudo vim ActionGroupControlDemo.py” and press “Enter” to open program file.

```
pi@raspberrypi:~/ArmPi_mini/HiwonderSDK $  
sudo vim ActionGroupControlDemo.py
```

4) Press “i” key to enter the program editing mode.

```
22 AGC.runAction('2')  
~  
-- INSERT --
```

5) Find the following code.

```
21 AGC.runAction('1')  
22 AGC.runAction('2')
```

6) Add “#” at the beginning of line 22 of the code, comment out this line of code, and keep only the code to execute No.1 action group.

```
21 AGC.runAction('1')  
22 #AGC.runAction('2')
```

7) After modification, press “Esc” to exit the editing mode. Then input “:wq” and press “Enter” to save and close program file.

```
:wq
```

8) Enter command “sudo python3 ActionGroupControlDemo.py” and press “Enter” to start game. Robot arm will execute No.1 action group once.

```
pi@raspberrypi:~/ArmPi_mini/HiwonderSDK $  
sudo python3 ActionGroupControlDemo.py
```

3.2 Call multiple action groups

You can modify program to control robot arm to execute multiple action groups. Here take No.1, No.2 and No.3 action groups for example. The specific operation steps are as follow:

1) Refer to the steps 1-3 in “3.1 Call a single action group”, open the program file and enter the editing mode.

```
21 AGC.runAction('1')  
22 #AGC.runAction('2')
```

2) Use keyboard to adjust the cursor to the beginning of the 21st line, and enter “2yy”. (The first number means the number of lines to be copied. for example, if want to copy 5 lines, enter 5yy)

```
21 AGC.runAction('1')  
22 #AGC.runAction('2')
```

3) Then adjust the cursor to the end of the 21st line and press “p”.

```
21 AGC.runAction('1')  
22 #AGC.runAction('2')
```

```
21 AGC.runAction('1')
22 #AGC.runAction('2')
23 AGC.runAction('1')
24 #AGC.runAction('2')
```

4) Press “i” to enter the program editing mode. Then adjust the cursor to the beginning of the 22th and 24th line to delete “#”, and modify all the numbers contained in the code of line 23th and 24th to “3” and “4”.

```
21 AGC.runAction('1')
22 AGC.runAction('2')
23 AGC.runAction('3')
24 AGC.runAction('4')
```

Note: Action group files must be saved in the directory

"/home/pi/ArmPi_mini/ActionGroups", and the name of the action group in program must be the same as the name stored in the folder, otherwise it may fail to be called!

5) After modification, press “Esc” to exit the editing mode. Then input “:wq” and press “Enter” to save and close the program file.

```
:wq
```

6) Enter command “sudo python3 ActionGroupControlDemo.py” and press “Enter” to start game. Then robot arm will execute No.1, No.2 and No.3 action group.

```
pi@raspberrypi:~/ArmPi_mini/HiwonderSDK $
sudo python3 ActionGroupControlDemo.py
```