Memory Learning Mode

Before running the function, you need to close the App and large programs. For the closing method, refer to [4.Preparation] - [1. Manage APP control services].

1. Function Description

Achieve action learning and execution through voice commands.

2. Startup and Operation

2.1. Startup

Open the terminal and enter the following command to start:

```
python3 ~/dofbot_voice/scripts/learnning_model.py
```

2.2. Operation Steps

After the program runs successfully, the voice module will broadcast "I'm here". Then say "Hello, yahboom" to the voice module. The voice module will reply "here" to indicate successful wake-up.

2.2.1. Learning Actions

Move the robotic arm to the desired position, then say "Record it" to the voice module. If fewer than 20 action groups have been entered, the voice module will reply "ok". If 20 action groups have already been entered, the voice module will reply "Too many actions, I Can't record them". If you want to end input, say "Over" to the voice module, and the voice module will reply "ok".

2.2.2. Executing Actions

Say "Display actions" to the voice module. The voice module will reply "ok", and the robotic arm will sequentially move to the previously learned positions.

2.2.3. Clearing Actions

Say "Clear actions" to the voice module. The voice module will reply "ok", and then you can proceed with the next learning session.

3. Core Code Analysis

`Source code path: ~/dofbot_voice/scripts/learnning_model.py`

```
#Call function to get voice recognition result
result = mySpeech.speech_read()
#If voice recognition result is 55, it means need to learn and record current
robotic arm position
if result == 55:
    time.sleep(.1)
    Arm.Arm_Action_Study()
    time.sleep(.5)
    num = Arm.Arm_Read_Action_Num()
    print(num)
    time.sleep(.5)
```

```
    #If less than 20 action groups, broadcast "OK"
    if num < 20:
        mySpeech.void_write(55)
    #If greater than or equal to 20 action groups, broadcast "Too many actions, I
Can't record them"
    elif num >= 20:
        mySpeech.void_write(56)
#If voice recognition result is 56, it means end recording learning actions
elif result == 56:
    mySpeech.void_write(57)
    Arm.Arm_Button_Mode(0)
#If voice recognition result is 57, it means execute previously learned actions
elif result == 57:
    mySpeech.void_write(58)
    Arm.Arm_Action_Mode(1)
#If voice recognition result is 58, it means clear actions in the action list
elif result == 58:
    mySpeech.void_write(59)
    Arm.Arm_Clear_Action()
```