# Text Large Model + robotic arm control（Voice Version)

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

After the program runs, wake up the voice module and say a sequence of robotic arm control commands. The large model will plan the action functions corresponding to the action commands and execute all commands in sequence.

## 2. Startup

Users with Jetson-Nano mainboard version need to enter the docker container first and then input the following command. Users with Orin mainboard can directly open the terminal and input the following command,

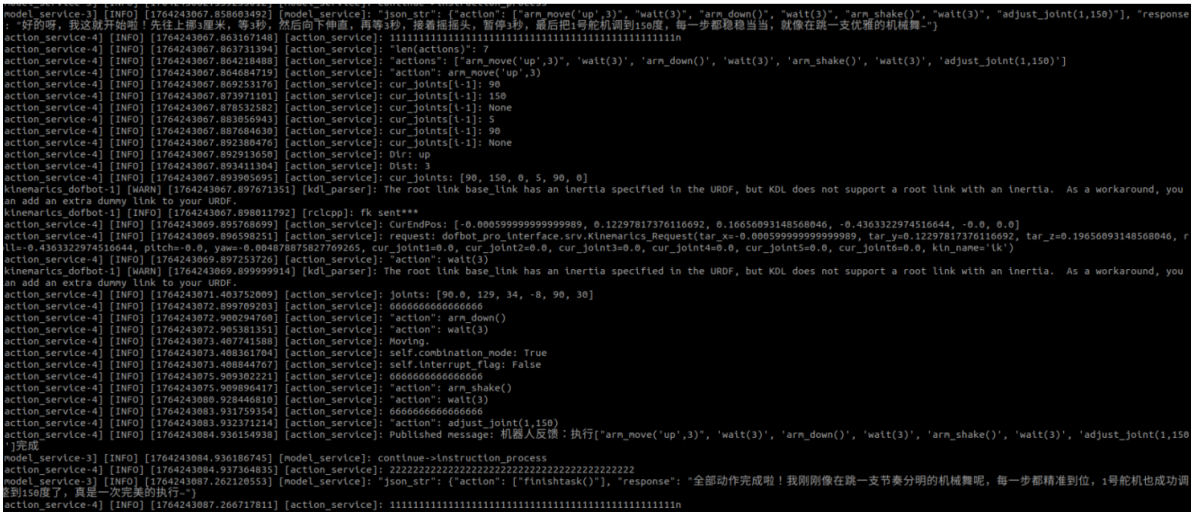
```
ros2 launch largemodel largemodel_control.launch.py
```

Currently available robotic arm control commands include:

- **Individual servo control**: Set servo x to y degrees, where x ranges from 1-6 and y ranges from 0-180, for example, set servo 1 to 120 degrees.
- **Individual robotic arm action control**: Robotic arm up/down/left/right, gripping posture, tracking posture, for example, set the robotic arm to gripping posture, robotic arm stretch upward;
- **Control robotic arm motion sequences**: Robotic arm dance/clap/nod/shake head, for example, please nod your head;
- **Change robotic arm end position**: Robotic arm adjust up/down/left/right/forward/backward by x cm, for example, move the robotic arm up by 3 cm

After waking up the module, give robotic arm control commands. You can refer to the following example:

```
First move the robotic arm up by 3 cm, wait for 3 seconds, then stretch the robotic arm downward, stay for 3 seconds, then have the robotic arm shake its head, pause for 3 seconds, and finally set servo 1 to 150 degrees.
```




# 3. Core Code Analysis

You can refer to the content in **3. Core Code Analysis** from tutorial [17. AI Model - Text Version] - [Text Large Model + robotic arm control]. The voice version and text version have the same action functions, only the task command input method is different.