

Voice control of car movement

1. Functional description

By interacting with the voice recognition module on NAVROBOT, the basic motion state control of the car forward, backward, parking, left turn, and right turn can be realized by voice control.

2. Start

2.1. Function package path

```
~/wukong-robot
```

2.2. Start

```
cd wukong-robot/  
python3 voice_ctrl_car.py
```

```
yahboom@ubuntu:~/wukong-robot$ python3 voice_ctrl_car.py  
Speech Serial Opened! Baudrate=115200  
█
```

Core code analysis:

- Import speech recognition library

```
from Speech_Lib import Speech
```

2. Create speech recognition objects and drive control objects

```
spe = Speech()
```

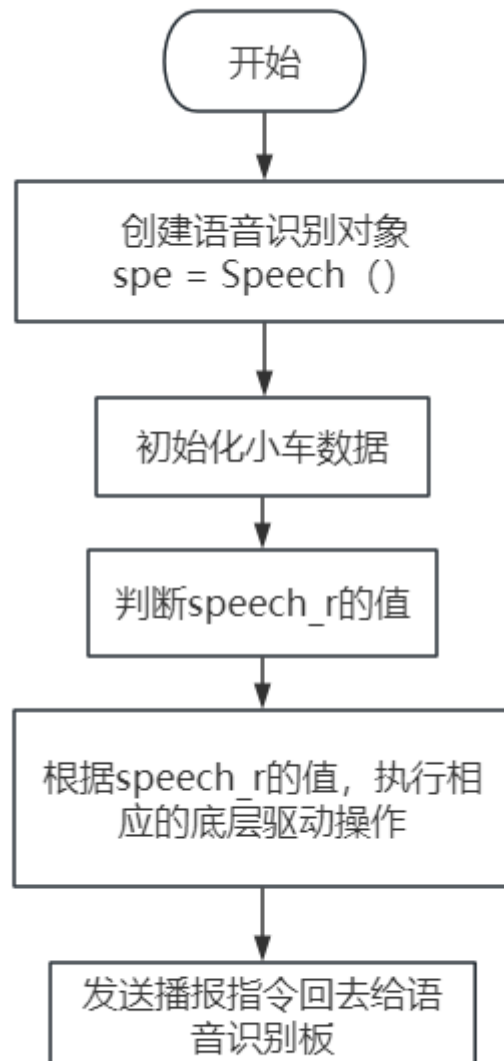
3. Read the content of speech recognition

```
speech_r = spe.speech_read()
```

4. Send voice broadcast content

```
spe.void_write(speech_r)
```

Program flow chart:



For specific code, please refer to

```
/home/yahboom/wukong-robot/voice_ctrl_car.py
```

3. Voice control of the car

Say "Hello, Xiaoya" to NAVROBOT, and wait until the module broadcasts "Yes", then according to the table below, you can switch/control the car's movement state through voice. For example, the following is the car moving forward.

```

yahboom@ubuntu:~/wukong-robot$ python3 voice_ctrl_car.py
Speech Serial Opened! Baudrate=115200
0
0
4
4
{"msg": "ok", "cmd": {"x": "0.3", "y": "0", "z": "0"}}
{"msg": "ok", "cmd": {"x": "0.3", "y": "0", "z": "0"}}
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{"msg": "ok", "cmd": {"x": "0.3", "y": "0", "z": "0"}}

```

3.1, Movement status

Functional words	Voice module recognition results	Voice broadcast content
Go ahead	4	OK , let's go
Back	5	OK , I'm back.
Turn left	6	OK , I'm turning left
Turn right	7	OK , I'm turning right.