树莓派小车

0.安装串口

```
sudo pip install pyserial
sudo pip install bottle
```

1.查看串口号（重要）

```
pi@raspberrypi:~/arduino_car $ python -m serial.tools.list_ports
/dev/ttyUSB0
1 ports found
```

2. 建立小车服务的目录

mkdir /home/pi/arduino_car

3. CD 到该目录

cd /home/pi/arduino_car

4. 新建service.py文件

vim service.py

粘贴以下内容

```
#!/usr/bin/env python3
from bottle import get,post,run,request,template
import serial
ser = serial.Serial('/dev/ttyUSB0', 9600, timeout=0.5)

@get("/")
def index():
return template("index")
@post("/cmd")
def cmd():
print("press "+request.body.read().decode())
# ser.write("press "+request.body.read().decode())
cmd = request.body.read().decode()
if cmd=="yun_up" :
ser.write("u")
elif cmd=="yun_down":
ser.write("d")
elif cmd=="yun_left":
ser.write("a")
elif cmd=="yun_right":
ser.write("c")
```

```
elif cmd=="up":
ser.write("g")
elif cmd=="down":
ser.write("b")
elif cmd=="left":
ser.write("l")
elif cmd=="right":
ser.write("r")
elif cmd=="stop":
ser.write("s")

return "OK"
run(host="0.0.0.0")
```

5. 新建index.html文件
vim index.html
粘贴以下内容

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>树莓派小车</title>
<link href="//cdn.bootcss.com/bootstrap/3.3.5/css/bootstrap.min.css" rel="stylesheet"
media="screen">
<script src="http://code.jquery.com/jquery.js"></script>
<style type="text/css">
#up {
margin-left: 55px;
margin-bottom: 3px;
}
#down {
margin-top: 3px;
margin-left: 55px;
}
</style>
<script>
```

```
$(function(){
$("button").click(function(){
$.post("/cmd",this.id,function(data,status){});
});
});

</script>
</head>
<body>
<div>
<h1>树莓派小车网页控制端</h1>
<h2>制作人:xxxxx</h2>
</div>

<div class="container">
<h3>运动控制</h3>
<div>
<button id="up" class="btn btn-lg btn-primary glyphicon glyphicon-circle-arrow-up">
</button>
</div>
<div>
<button id='left' class="btn btn-lg btn-primary glyphicon glyphicon-circle-arrow-left">
</button>
<button id='stop' class="btn btn-lg btn-primary glyphicon glyphicon-stop"></button>
<button id='right' class="btn btn-lg btn-primary glyphicon glyphicon-circle-arrow-right">
</button>
</div>
<div>
<button id='down' class="btn btn-lg btn-primary glyphicon glyphicon-circle-arrow-
down"></button>
</div>

<h3>云台控制</h3>
<div>
<button id="yun_up" class="btn btn-lg btn-primary glyphicon glyphicon-circle-arrow-
up"></button>
<button id='yun_left' class="btn btn-lg btn-primary glyphicon glyphicon-circle-arrow-
left"></button>
<button id='yun_right' class="btn btn-lg btn-primary glyphicon glyphicon-circle-arrow-
```

```
right"></button>
<button id='yun_down' class="btn btn-lg btn-primary glyphicon glyphicon-circle-arrow-down"></button>
</div>

</div>


<script src="//cdn.bootcss.com/bootstrap/3.3.5/js/bootstrap.min.js"></script>
</body>
</html>
```

6. 测试

```
cd /home/pi/arduino_car/
python service.py
```

7. 设置开机启动

```
sudo vim /etc/rc.local

#!/bin/sh -e
#
# rc.local
#
# This script is executed at the end of each multiuser runlevel.
# Make sure that the script will "exit 0" on success or any other
# value on error.
#
# In order to enable or disable this script just change the execution
# bits.
#
# By default this script does nothing.

# Print the IP address
_IP=$(hostname -I) || true
if [ "$_IP" ]; then
printf "My IP address is %s\n" "$_IP"
fi
cd /home/pi/arduino_car/
python service.py &
```

```
exit 0
```