

# 15.Set boot self-start

## 1.Make a test script

The effect of running the script file is to create a new hello.c file in the pi directory and add the "hello word!" string to the hello.c file.

Create a new testStart.sh script file.

```
nano testStart.sh
```

Input the following in the testStart.sh file.

```
#!/bin/sh
```

```
touch /home/pi/hello.c
```

```
sudo chmod 777 /home/pi/hello.c
```

```
echo "hello word!">>/home/pi/hello.c
```

```
#!/bin/sh
touch /home/pi/hello.c
sudo chmod 777 /home/pi/hello.c
echo "hello word!">>/home/pi/hello.c
```

After completing the input, press "Ctrl+X", press Y to save, and then press Enter to confirm.

Add execution permissions to the script

```
sudo chmod 777 testStart.sh
```

```
pi@raspberrypi:~ $ sudo chmod 777 testStart.sh
pi@raspberrypi:~ $
```

Test script function

```
./testStart.sh
```

We can see that the hello.c file has been generated

```
pi@raspberrypi:~ $ ls
Desktop  Downloads  MagPi  Pictures  Templates  Videos
Documents  LCD-show  Music  Public  testStart.sh  wiringPi
pi@raspberrypi:~ $ ./testStart.sh
pi@raspberrypi:~ $ ls
Desktop  Downloads  LCD-show  Music  Public  testStart.sh  wiringPi
Documents  hello.c  MagPi  Pictures  Templates  Videos
pi@raspberrypi:~ $
```

Check the hello.c file and you can see the word hello in it! string.

```
cat hello.c
```

```
pi@raspberrypi:~ $ cat hello.c
hello word!
```

At this point, the test tutorial has been completed.

In order to verify the effect, we can first delete the generated hello.c.

```
rm hello.c
```

```
pi@raspberrypi:~ $ rm hello.c
pi@raspberrypi:~ $ ls
Desktop    Downloads  MagPi      Pictures   Templates  Videos
Documents  LCD-show   Music      Public     testStart.sh wiringPi
```

If you don't delete it, "hello word!" will be superimposed on the next line every time you run the script.

```
pi@raspberrypi:~ $ cat hello.c
hello word!
hello word!
```

## 2.New create .desktop file

Enter ./config file

```
cd /home/pi/./config
```

Create a new autostart folder.

If it already exists, please ignore this step.

```
mkdir autostart
```

Enter autostart folder

```
cd autostart
```

Create a new self-starting shortcut

```
nano start.desktop
```

Enter the following content.

```
[Desktop Entry]
Type=Application
Exec=/home/pi/testStart.sh
```

```
GNU nano 3.2 start.desktop

[Desktop Entry]
Type=Application
Exec=/home/pi/testStart.sh
```

Press Ctrl+X, press Y to save, and then press Enter.

Where Exec=the path to the startup script.

We can restart the Raspberry Pi to see the actual effect

```
sudo reboot
```

Note: This method uses the Raspberry Pi to automatically start the program after entering the desktop to achieve automatic startup, so it needs to wait until the desktop is loaded before starting, and the waiting time is relatively long.

If the Raspberry Pi is not connected to a monitor, there may be a problem that after adding a startup file, the system will not start automatically. In this case, you need to modify the /boot/config.txt file.

```
sudo nano /boot/config.txt
```

Find the line `hdmi_force_hotplug=1` and delete the `#` sign in front of it.

```
# uncomment to force a console size. By default it will be displayed
# overscan.
#framebuffer_width=1280
#framebuffer_height=720

# uncomment if hdmi display is not detected and composite is being
hdmi_force_hotplug=1
# uncomment to force a specific HDMI mode (this will force VGA)
#hdmi_group=1
#hdmi_mode=1
```

Press Ctrl+O to save and Press Ctrl+X to exit.