

Run a Python program automatically on startup

This method will start a Python Program in a terminal widow.
The program is **xyz.py** and it is in the **/home/pi/abc** directory.

To do this, an **autoexec.sh** file is created in the startup directory, **/home/pi**. This is an executable linux shell file. It will run the Python file in the correct directory.

The name autoexec was chosen in remembrance of the unique DOS batch file, autoexec.bat. This file was automatically run on bootup in the DOS operating system. In Linux, the name of the file is not important.

To run this shell script on startup, it must be in the **/home/pi/.config/autostart/desktop** file.

- 1- Create the **autostart** directory in the **/home/pi/.config** directory.
 - a. Start from the **/home/pi** directory.
 - b. Change to the **.config** directory: **cd .config**
 - c. Create the **autostart** directory: **mkdir autostart**

- 2- Create the **.desktop file: sudo nano .desktop**
 - a. Enter the follow 3 lines in the text editor:
 - i. **[Desktop Entry]**
Type = Application
Exec = lterminal -e ./autoexec.sh (The **./** is used to run executable files.)

 - ii. Press **ctrl-o**
 - iii. Press **Enter** to save the file.
 - iv. Pres **ctrl-x** to exit the text editor.

- 3- Create the **autoexec.sh** file to run the **xyz.py** Python program in the **/home/pi/abc** directory.
 - a. Start in the **/home/pi** directory.
 - i. Create the **autoexec.sh** file: **sudo nano autoexec.sh**
 - ii. Enter the following 2 lines:
cd abc
python xyz.py
 - iii. Press **ctrl-o**
 - iv. Press **Enter** to save the file.
 - v. Pres **ctrl-x** to exit the text editor.

 - b. Make the **autoexec.sh** file executable **chmod +x autoexec.sh**.

Note. The autoexec.sh file is not necessary. To run the file it could be placed in the last line of the .desktop file: **Exec = lterminal -e ./python home/pi/abc/xyz.py**.

The advantage of the autoexec.sh file is that it makes it easier to change the autorun program.

1-The file to be edited is in the **/home/pi directory** instead of the **/home/pi/.config/autostart** directory.

2- Several **autoexe.xx** files can be save and easily be rename to the **autoexec.sh** file.

For example if one wishes to run a program name **gps1.py** which is located in the **/home.pi/gps_2017** directory.

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The autoexec.sh file in the /home/pi directory will have the following lines:

```
cd gps_2017
```

```
sudo python gps1.py
```