

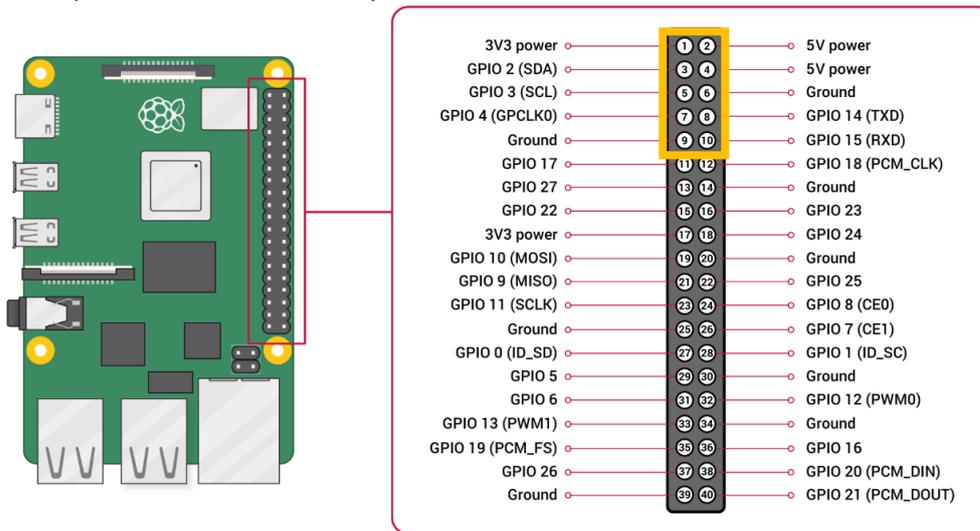
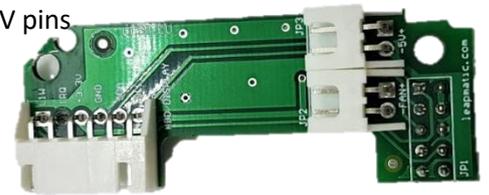
HATLO2FP

Automatic fan control module for Raspberry Pi with I2C/TXD/RXD/5V pins.

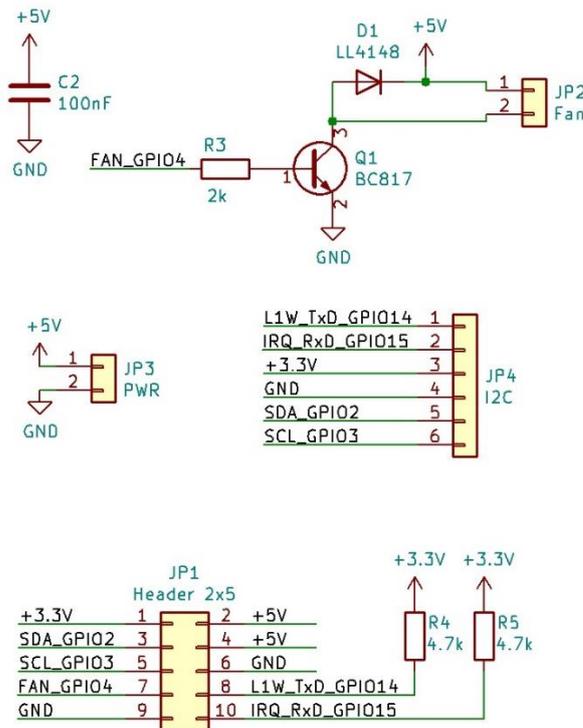
Do you want to extend the life of your fan, reduce its noise and control it automatically? With this MaticControl fan module you can! As a bonus, the second connector provides access to the I2C /TxD /RxD pins and third connector provides access to the 5V pins

I2C pins along with a 3.3V pin are often used to connect displays or other modules that use an I2C pins

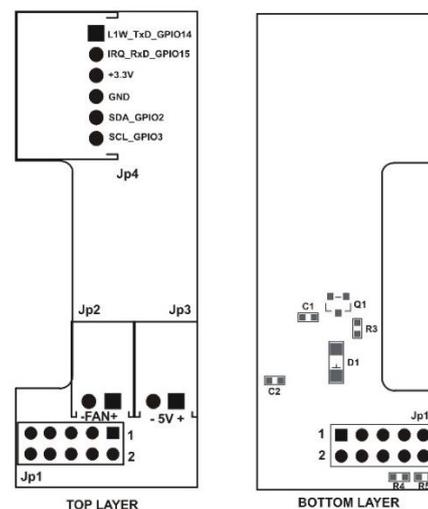
Place it on pins 1-10. And this is all you have to do on the hardware.



Electrical Scheme of the module:



PCB

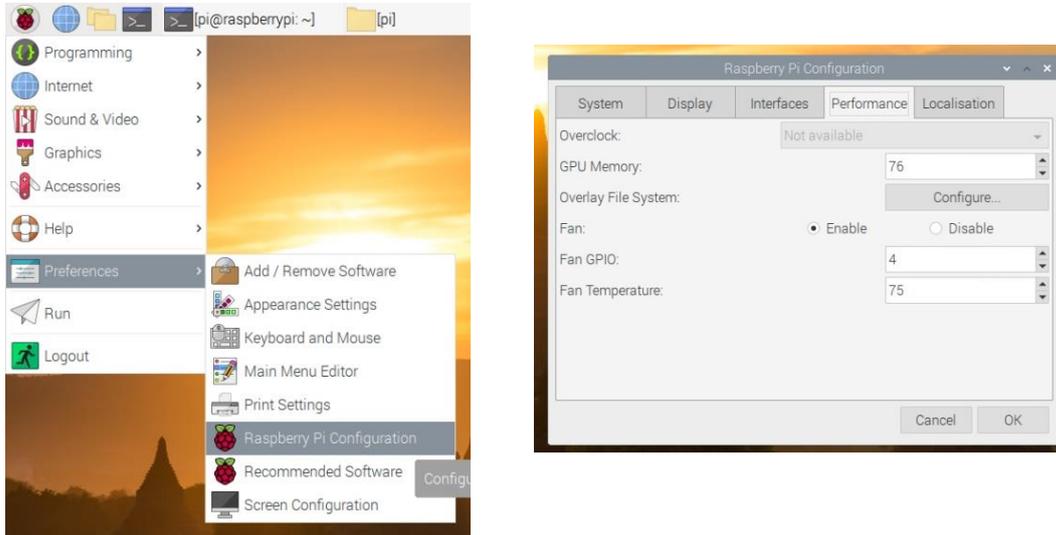


I. Fan Control

About the software settings you have two options:

1. Graphical

From Raspberry icon > Preferences> Raspberry Pi Configuration > Performance tab >set fan enable; Fan GPIO 4; and the temperature at which you want the fan to turn on. Save with OK

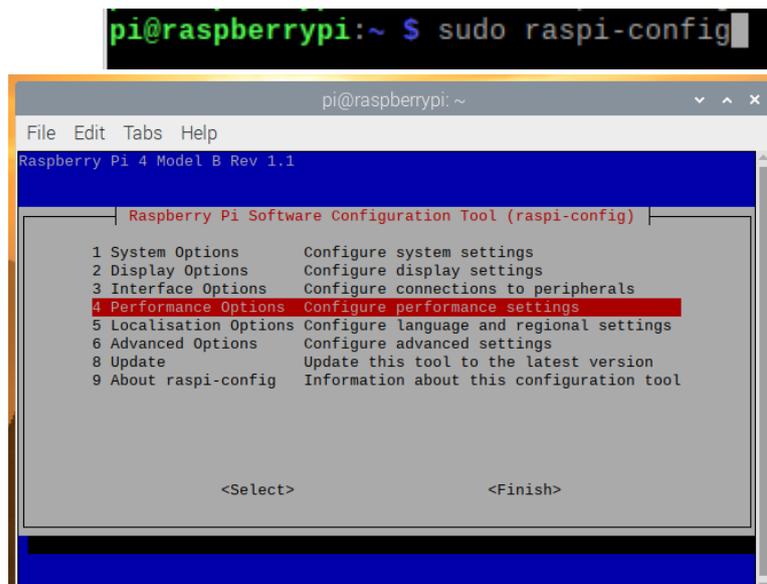


Thus, when the processor reaches the temperature you set, the fan will turn on. It will turn on off only when the processor temperature drops 10 degrees below the set on temperature. (For example, if you set the On temperature to 75 degrees, the fan will turn off when the processor reaches 65 degrees). With these few easy steps, you now have automatic fan control.

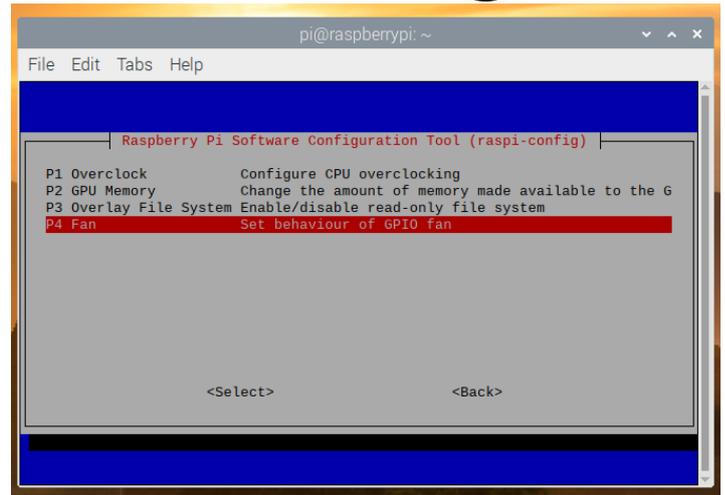
2. Console

Open the Console and type
sudo raspi-config

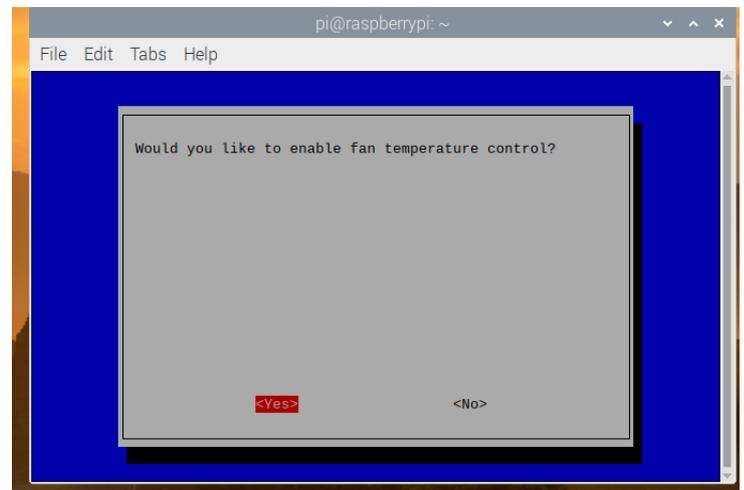
You will open a graphical interface menu where you need to choose Performance Options:



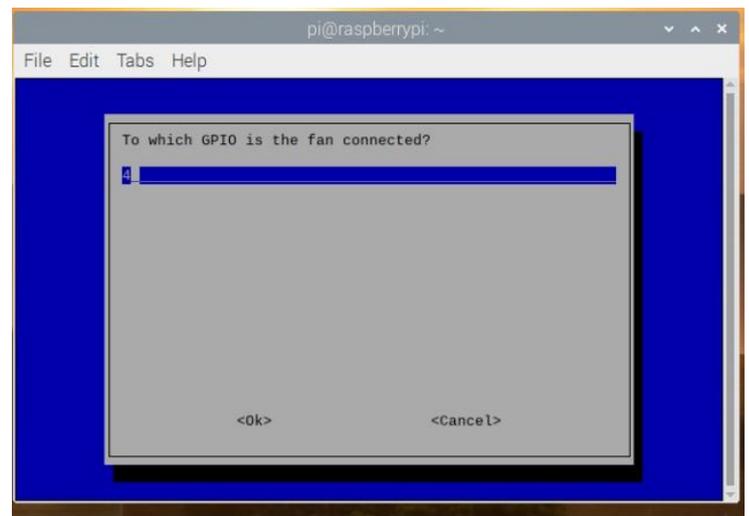
Then Choose “Fan”



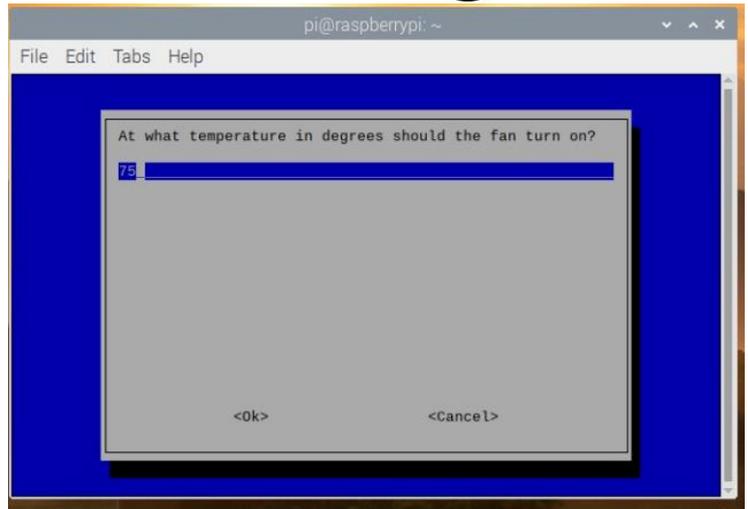
It will ask you if you want to enable fan temperature control? – Choose “Yes”



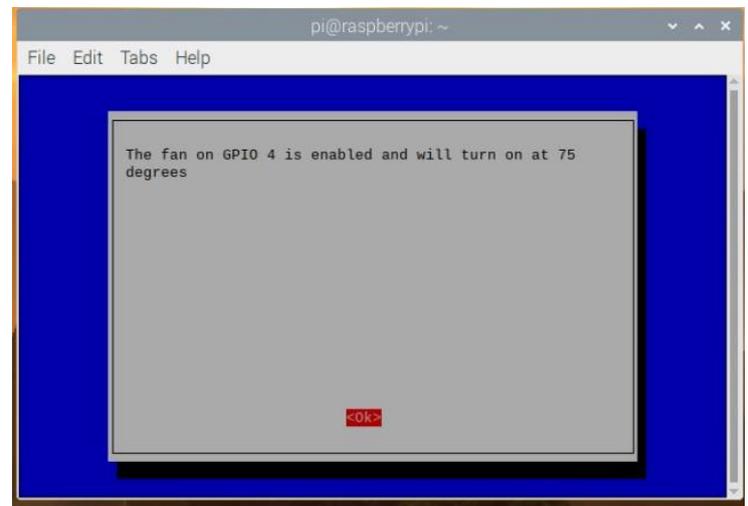
Here you need to set GPIO 4



Then set the temperature on which the fan will turn on



At last the system will inform you about the changes.



II. I2C pins and 3,3V power supply

GPIO 2 and GPIO 3 - the Raspberry Pi's I2C1 pins - allow for two-wire communication with a variety of external sensors and devices. The I2C pins include a fixed 1.8 k Ω pull-up resistor to 3.3v. They are not suitable for use as general purpose IO where a pull-up might interfere. I2C pins along with a 3.3V pin are often used to connect displays or other modules that use an I2C pins.

III. RXD/TXD pins (UART)

This is a traditional serial line. Some Pi oriented OS distros such as Raspbian by default boot with this serial line active as a console, and you can plug the other end into another computer and use some appropriate software to communicate with it. Note this interface does not have a clock line; the two pins may be used for full duplex communication (simultaneous transmit and receive).

IV. 5V Connector

Use of 5V connector as output – You can connect hats or other devices which need to be supplied with 5V.

Use of 5V connector as input – You can power your raspberry via this connector from an external power supply. It can be very convenient when you have several Pi's and you can power them from one source. Power supply cables can run on either side of the MaticBox. This way you don't have to set aside space on the side for the power connector that is on the Raspberry Pi itself. This will allow you to mount many Pi's close to each other, with the power cables coming out from under the cover of MaticBox.