

Instructions for the automated kettle

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1. - Wiring

(see diagram for exact pin locations)

1.1 - From the resistor (Temperature probe)

Yellow wire -> GPIO 4

Red wire -> Pin 1

White wire -> Pin 6





















1.2 - On the relay

VCC -> Pin 2

IN1 -> any GPIO pin, it is chosen on the web interface

GND -> Pin 9

1.3 - Raspberry Pi pinout

Raspberry Pi 3 Model B (J8 Header)					
GPI0#	NAME			NAME	GPI0#
	3.3 VDC Power	1		2	5.0 VDC Power
8	GPI0 8 SDA1 (I2C)	3		4	5.0 VDC Power
9	GPI0 9 SCL1 (I2C)	5		6	Ground
7	GPI0 7 GPCLK0	7		8	GPI0 15 TXD (UART)
	Ground	9		10	GPI0 16 RXD (UART)
0	GPI0 0	11		12	GPI0 1 PCM_CLK/PWM0
2	GPI0 2	13		14	Ground
3	GPI0 3	15		16	GPI0 4
	3.3 VDC Power	17		18	GPI0 5
12	GPI0 12 MOSI (SPI)	19		20	Ground
13	GPI0 13 MISO (SPI)	21		22	GPI0 6
14	GPI0 14 SCLK (SPI)	23		24	GPI0 10 CE0 (SPI)
	Ground	25		26	GPI0 11 CE1 (SPI)
30	SDA0 (I2C ID EEPROM)	27		28	SCL0 (I2C ID EEPROM)
21	GPI0 21 GPCLK1	29		30	Ground
22	GPI0 22 GPCLK2	31		32	GPI0 26 PWM0
23	GPI0 23 PWM1	33		34	Ground
24	GPI0 24 PCM_FS/PWM1	35		36	GPI0 27
25	GPI0 25	37		38	GPI0 28 PCM_DIN
	Ground	39		40	GPI0 29 PCM_DOUT

Attention! The GPI0 pin numbering used in this diagram is intended for use with WiringPi / Pi4J. This pin numbering is not the raw Broadcom GPI0 pin numbers.

<http://www.pi4j.com>

2. - Run the web server

On the Raspberry Pi (via SSH)

User : pi

Password : p

```
cd ~/autokettle/webapp
```

Update the Github repository

```
git pull
```

Run the web server

```
./run.sh
```

3. - Use the kettle

3.1 - Connect to the web interface

Raspberry Pi IP:5000 or bouilloire.nsi.lan:5000

3.2 - Using the interface

In the sandwich menu, enter the GPIO pin used for the relay and the desired water temperature

Click on 'Submit' to validate this information (normally it is stored)

3.3 - Fire in the hole !

Click on 'Heat up' on the main menu to start the kettle, it will stop when the desired temperature is reached

4. - Credits

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