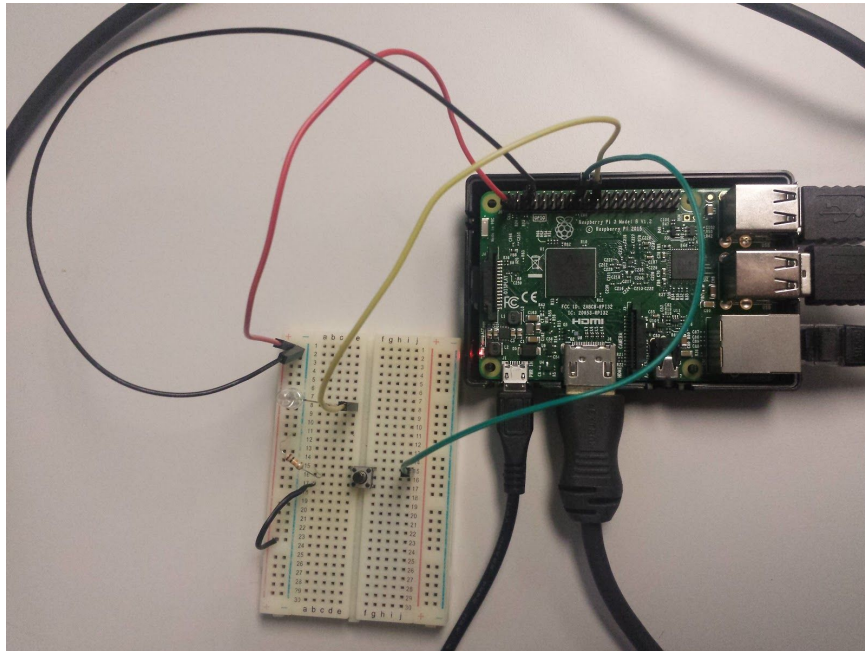


# WebLamp

## Step1 - Control of a simple push button

- Raspberry Pi 3 Model B
- Breadboard
- Push button
- Jumper wires
- LED
- 10K resistor
- Lamp



**Video:** <https://goo.gl/photos/94XzqSY6cJZ3Pt9D9>

- the push button - connected to GPIO24
- positive power bus of the breadboard - connected to 3V3 pin
- 10K resistor
- to read the value of the push button:

```
# echo 24 > /sys/class/gpio/export
# cd /sys/class/gpio/gpio24
# echo in > direction
# cat value
```

## Step2 - Cron lamp timer

- the LED - connected to GPIO25
- to turn it ON: `./on.sh 25`
- to turn it OFF: `./off.sh 25`
- the LED connection is replaced with the PowerSwitchTail II.
- use hookup wires
- “+in” of the PowerSwitchTail II -> GPIO25
- “-in” of the PowerSwitchTail II -> ground

## Optional Step: Raspberry Pi - basic setup without any cables

- Very nice [documentation](#) to configure internet connection of Raspberry Pi, ssh connection and other tips.
- Very useful: installation of fail2ban which will automatically ban IP addresses that are failing to get into our RPi too many times

### Step3 - Create a web server

- using Flask web-framework (Python): <http://flask.pocoo.org/>

```
$ sudo pip install flask
```

- To configure the web server: `weblamp.py`
- If you connect via an `ssh` session, use [tmux](#) and launch the server inside the `tmux` session to avoid the disconnection of the server after you close the `ssh` session.
- to launch the server: `sudo python weblamp.py`

### IP address for Raspberry Pi: **X.X.X.X**

- or, install [avahi-daemon](#) to access the Pi on the local network via <http://raspberrypi.local>

```
$ sudo apt-get install avahi-daemon
```

- launch the weblamp app: <http://X.X.X.X>

**Video:** <https://goo.gl/photos/f7rLm7GQGPFwPQui6>