1. Download Balena Etcher (or any other SD card flasher)
2. Download Raspbian Light from Raspbian.org (without desktop) and unzip it.
3. Flash the SD card with last version of RaspBian (sometimes verify fails but it works if flash didn't fail)
4. Then put the SD card in the raspberry, plug HDMI, LAN with DHCP with internet, a keyboard and 5V power.
5. Log into the raspberry from keyboard (id: '**pi**' pwd: '**raspberry**') default FR-CH keyboard = 'raspberrz'
6. `sudo raspi-config`
7. At least, just **autologin**, **expand filesystem** and **activate SSH** but any other setup can be done here.
8. Reboot the raspberry and now you can log into the RP via SSH. Find ip of RP with `ifconfig`
9. `sudo apt-get update && sudo apt-get upgrade -y && sudo apt autoremove -y && sudo reboot`
10. `sudo mkdir pysc`
11. `cd pysc`
12. `sudo wget https://raw.githubusercontent.com/FmodouX/UWWtiming/master/_HARDWARE/bumper.py`
13. `sudo nano /lib/systemd/system/UWWbumper.service`

```
  GNU nano 3.2          /lib/systemd/system/UWWbumper.service

[Unit]
Description=UWWbumper Service
After=multi-user.target

[Service]
Type=idle
ExecStart=/usr/bin/python /home/pi/pysc/bumper.py

[Install]
WantedBy=multi-user.target


                              [ Read 11 lines ]
^G Get Help  ^O Write Out ^W Where Is  ^K Cut Text  ^J Justify   ^C Cur Pos
^X Exit      ^R Read File ^\ Replace   ^U Uncut Text^T To Spell  ^_ Go To Line
```

14. `sudo chmod 644 /lib/systemd/system/UWWbumper.service`
15. `sudo systemctl daemon-reload`
16. `sudo systemctl enable UWWbumper.service`
17. `sudo reboot`

    After the reboot, the white led should blink approximatively once per second to prove the script is running.

18. To edit the python script, `sudo nano -c /home/pi/pysc/bumper.py`

To load an update of the script from github :

```
cd pysc
sudo wget -N https://raw.githubusercontent.com/FmodouX/UWWtiming/master/_HARDWARE/bumper.py
sudo reboot
```