Originally from: <https://td0g.ca/2020/05/27/simple-tally-light-for-obs-studio>

These modified instructions created by SiliconKnight42 in Jun20, based on Raspberry Pi Zero W.

1. Burn the latest version of [Raspbian Buster Lite](https://www.raspberrypi.org/downloads/raspbian/) to a microSD card.  I use [Balena Etcher](https://www.balena.io/etcher/) to do this.
2. Insert the microSD card into the Raspberry Pi and power it up.
3. Login (default uid/pid: pi / raspberry) Change your password!
4. Now create file in in a new directory /etc/wpa\_supplicant called **wpa\_supplicant.conf** and open it with a text editor (**sudo nano wpa\_supplicant.conf**).  Save the following text.

ctrl\_interface=DIR=/var/run/wpa\_supplicant GROUP=netdev

update\_config=1

country=US

network={

ssid=”Network SSID”

psk=”Network WPA key”

}

1. Copy the newly created wpa\_supplicant file to the /boot directory (sudo cp wpa\_supplicant.conf /boot)
2. Update the Raspi-config tool (using the menu item)
3. Use raspi-config (sudo raspi-config) to set the Keyboard layout to US.
4. Use raspi-config to enable SSH.
5. Set to autologin on boot: **sudo raspi-config** , Boot Options, Desktop/CLI, Console Autologin, Finish
6. Reboot and confirm network connectivity.
7. Update the system: **sudo apt-get update** and **sudo** **apt-get upgrade**
8. Install Python 3 and pip: **sudo apt-get install python3 python3-pip**
9. Install ping modules: **sudo pip3 install pythonping multiping**
10. Install the following Python 3 modules: **sudo pip3 install websocket-client obs-websocket-py RPi.GPIO**
11. Create an empty text file to store the last OBS Websocket address:  **sudo nano /home/pi/obsAddr.log**
    * You may enter the OBS Studio PC’s IP address into the text file.  It will speed up the search, but isn’t necessary.
12. Set ownership and permissions on that text file: **sudo chown pi /home/pi/obsAddr.log** and **sudo chmod 777 /home/pi/obsAddr.log**
13. Create the Python script: **sudo nano /home/pi/tallylight.py**
    * Copy the code from [my repository](https://github.com/td0g/OBS_TallyLight/blob/master/tallylight.py).  Save with **Ctl-X Y**.
      1. Edit the **trigger\_char** variable if you don’t want to use the ‘+’ character as a trigger
      2. Make sure the **password** matches what was set in OBS Studio
    * OR, transfer the file via SFTP, etc.
14. Set the code to execute on boot by editing the boot script: **sudo nano /etc/profile**, and add this line at the very end: **sudo python3 /home/pi/tallylight.**py
15. For advanced users:
    * For some Wifi connections, it takes longer to connect, so adding a **sleep 30** to the **/etc/profile** script can allow that to happen.
    * I added a **sleep 30** and **sudo reboot** at the end of the boot script to force the RPi to reboot if the Python script ever errors out. This allows the Tally light to always resume it’s “normal” state if something goes wrong (I’ve noticed that OBS crashes can leave the Python script in odd states or even cause it to crash)