

=NOOBS Installation Guide (New Out Of the Box Software)

Guide to Flashing Raspberry Pi OS to SD card.....To install OS onto Pi.

<https://www.raspberrypi.org/downloads/noobs/>

Magic Mirror Tips - <https://youtu.be/OEttuszJeT0>

PIR (Infrared Radiation) Motion Sensor to Magic Mirror

<https://www.magicmirrorcentral.com/pir-sensor-raspberry-pi-magic-mirror/>

<https://forum.magicmirror.builders/topic/6291/howto-turn-on-off-your-monitor-time-based-pir-button-app>

<https://github.com/Tom-Hirschberger/MMM-GPIO-Notifications/blob/master/examples/HC-SR501/HC-SR501-GPIO4-README-EN.md>

Radar Sensor (PIR Alternative)(Doppler Effect instead of Infrared)

Stealthier and can detect behind mirror unlike PIR

<https://forum.magicmirror.builders/topic/11704/update-replaced-my-pir-sensor-with-a-doppler-microwave-sensor>

<https://forum.magicmirror.builders/topic/4787/microwave-doppler-motion-detection-anyone-got-it-to-work>

<https://github.com/jdesbonnet/RCWL-0516>

Setup Posts with Radar Sensor

<https://forum.magicmirror.builders/topic/13430/my-first-slim-mirror-at-home>

<https://forum.magicmirror.builders/topic/14358/my-new-magic-mirror/9>

Radar Sensor Prototyping

<https://www.youtube.com/watch?v=IJoPkKlxFXA&t=1502s>

RCWL POTS

- CCW to increase Ohms = Detects Further Away

Frameless, LED, Motion Detection builds

<https://forum.magicmirror.builders/topic/14048/borderless-bathroom-mirror?page=1>

***<https://medium.com/@jasperzuyderwijk/mirror-mirror-on-the-wall-who-is-the-smartest-of-them-all-50da2db29ca4>

Facial Recognition Module

<https://github.com/paviro/MMM-Facial-Recognition>

<https://forum.magicmirror.builders/topic/6345/facial-recognition-module-step-by-step-guide?page=1>

<https://forum.magicmirror.builders/topic/33/mmm-facial-recognition-customize-your-mirror-for-every-user>

<https://github.com/nischi/MMM-Face-Reco-DNN>

Mirror

https://www.amazon.com/gp/product/B000H5XTKG/ref=as_li_qf_asin_il_tl?ie=UTF8&tag=cyberomelette-20&creative=9325&linkCode=as2&creativeASIN=B000H5XTKG&linkId=4a4fca9bc052b2e3230a46bbc5acaa7e

<https://smartmirrorguide.com/how-much-does-a-smart-mirror-cost/>

Mirror Supplier (forums)

<https://forum.magicmirror.builders/topic/15553/new-2-way-mirror-supplier-lower-prices-and-lead-times/21?page=3>

BinsWanger atx MirroPane 18x24 - \$113

16x45 - \$116

1/4

Alamo Glass Mirropane - \$90

- From Dallas Manu: \$154.88

Arrow Glass

16x45 - \$95

One way review

14x48

1/4

141

Temp 161

thickness?

LED Strip and reflective film -

<https://smartmirrorguide.com/recommended-smart-mirror-parts-list/>

Mount Frameless Mirror -

<https://smartmirrorguide.com/how-can-i-mount-a-smart-mirror-to-a-wall/>

Building Frameless tips-

<http://www.tmproductions.com/projects-blog/2015/8/29/magic-mirror#commentsWrapper>
=
<https://smartmirrorguide.com/choosing-glass-or-acrylic-for-your-smart-mirror/>
<https://forum.magicmirror.builders/topic/4337/frameless-illuminated-motion-sensitive-smartmirror?lang=en-US&page=1>
<https://forum.magicmirror.builders/topic/6173/slim-frameless-bathroom-mirror-with-a-27-display/>
5

<https://forum.magicmirror.builders/topic/9000/decided-to-take-it-on-frameless-bathroom-mirror>

LED Auto startup

<https://www.tomshardware.com/how-to/run-script-at-boot-raspberry-pi>

<https://stackoverflow.com/questions/69122457/python-script-executed-reboot-with-crontab>

Pi Hue Motion-

<https://github.com/bmantoni/pi-hue-motion>

<https://bmantoni.github.io/raspberry%20pi/motion-activated-philips-hue-with-raspberry-pi/>

PIR Motion Detection python intro -

<https://www.hackster.io/hardikrathod/pir-motion-sensor-with-raspberry-pi-415c04>

<https://youtu.be/pSSn4u3xGIg>

<https://www.deviceplus.com/raspberry-pi/geekcraft-build-your-own-raspberry-pi-motion-detector/>

<https://www.deviceplus.com/raspberry-pi/using-pir-motion-sensors-with-the-raspberry-pi-and-python/>

<https://tutorials-raspberrypi.com/connect-and-control-raspberry-pi-motion-detector-or-pir/>

<https://www.putorius.net/using-pir-sensor-for-motion-detection.html/amp>

---PIR HDMI onOff in Python

<https://raspberrypi.stackexchange.com/questions/87319/turn-screen-on-and-off-with-motion-sensor>

RPI autostart py

<https://tutorials-raspberrypi.com/raspberry-pi-autostart-start-program-automatically/>

<https://www.raspberrypi-spy.co.uk/2015/02/how-to-autorun-a-python-script-on-raspberrypi-boot/>

RGB Lighting

<https://tutorials-raspberrypi.com/connect-control-raspberry-pi-ws2812-rgb-led-strips/>

https://www.youtube.com/watch?v=1r_wxBg0VMM

<https://www.raspberrypi.org/forums/viewtopic.php?t=259927>

<https://github.com/naztronaut/RaspberryPi-RGBW-Control>

<https://www.easyprogramming.net/raspberrypi.php>

Hardware RGB Wiring -

<https://learn.adafruit.com/neopixels-on-raspberry-pi/raspberry-pi-wiring>

<https://tutorials-raspberrypi.com/connect-control-raspberry-pi-ws2812-rgb-led-strips/>

<https://learn.adafruit.com/light-painting-with-raspberry-pi/hardware>

Level Conversion

<https://www.raspberrypi-spy.co.uk/2018/09/using-a-level-shifter-with-the-raspberry-pi-gpio/>

With or W/O Shifter discussion - <https://www.raspberrypi.org/forums/viewtopic.php?t=258577>

Software Python Communication to Adafruit NeoPixel Library!

<https://learn.adafruit.com/adafruit-neopixel-uberguide/python-circuitpython#python-installation-of-neopixel-library-17-9>

<https://thepihut.com/blogs/raspberry-pi-tutorials/using-neopixels-with-the-raspberry-pi>

<https://dordnung.de/raspberrypi-ledstrip/ws2812>

.py lighting

<https://tutorials-raspberrypi.com/connect-control-raspberry-pi-ws2812-rgb-led-strips/>

https://github.com/BSFEMA/RPi_WS2812

INSTALLATION OF THE NEOPIXEL LIBRARY FOR PYTHON

There are several libraries out there for controlling WS2812b LEDs with a Raspberry Pi, but my favorite is the Neopixel library. It's super easy to use and just makes everything a snap. If you've got a favorite drop it in the comments below.

To install the Neopixel library run the following command:

```
sudo pip3 install rpi_ws281x adafruit-circuitpython-neopixel
```

Above info -- <https://www.thegeekpub.com/16187/controlling-ws2812b-leds-with-a-raspberry-pi/>

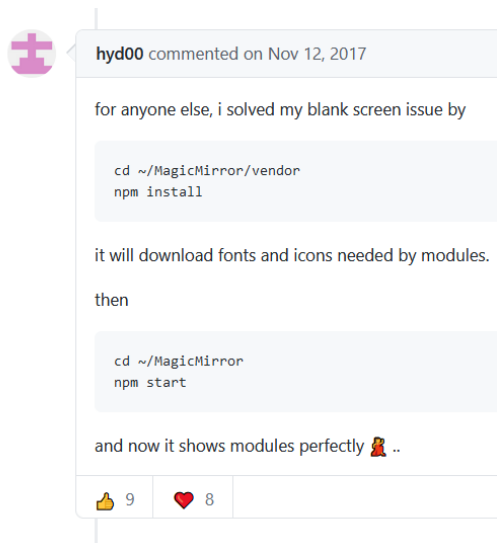
PSU Alternatives??

https://www.amazon.com/JOVNO-100-240V-Converter-Transformer-5-5x2-5mm/dp/B08763VWXM/ref=cm_cr_arpd_pl_foot_top?ie=UTF8

https://www.amazon.com/gp/product/B01B1QKL8/ref=ppx_yo_dt_b_asin_title_o00_s00?ie=UTF8&th=1

Black Screen with mouse resolve

<https://github.com/MichMich/MagicMirror/issues/1018>



Automated Cooling fan

📺 Raspberry Pi Fan Temperature Control [Howto]

[turn off fan by shutdown only - Raspberry Pi Forums](#)

330+220ohm resistor = 550ohms

Temp log

<https://projects.raspberrypi.org/en/projects/temperature-log/0>

<https://howchoo.com/g/ote2mjkzzta/control-raspberry-pi-fan-temperature-python>

<https://scarff.id.au/blog/2021/circuit-for-temperature-controlled-dual-fan-raspberry-pi-case/>

Flyback diode

The fan acts like an inductor, which means that there can be voltage spikes when we attempt to turn it off by cutting the voltage to the transistor but it keeps rotating due to inertia. We can eliminate this by introducing a [flyback diode](#) in parallel with the fans.

