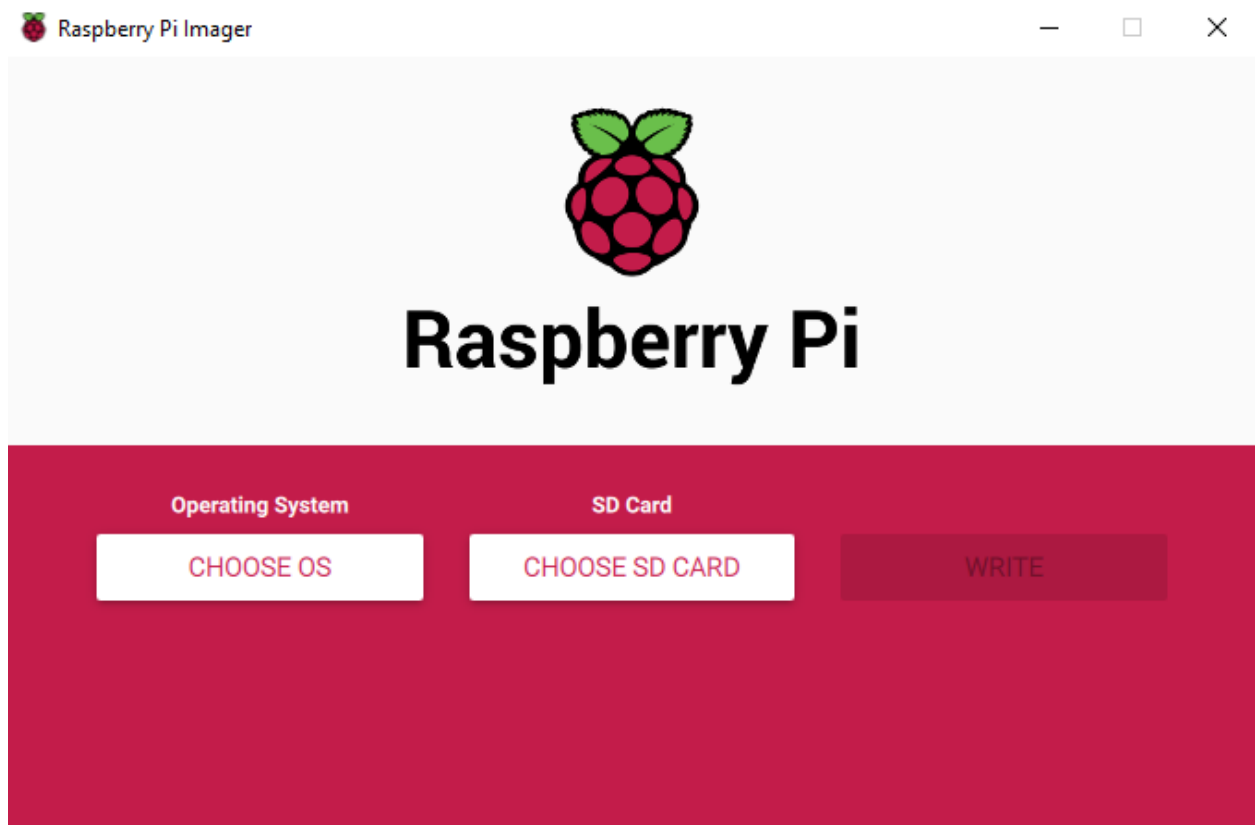


# Configuring a Raspberry Pi for IoT applications

## Download Raspberry Pi Imager

<https://www.raspberrypi.com/software/>



Install Raspbian OS on the SD card.

## Connect to the RPI via ssh

Connect to the same LAN

- ssh [pi@name.local](#)

- Put the password

## Update OS

```
sudo apt update
sudo apt upgrade -y
```

## Change network

```
nano /etc/wpa_supplicant/wpa_supplicant.conf
```

```
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1
network={
    ssid="hotspot"
    psk=8e2b5ff71b52adfeadec59b48a98727416402a107c80d428796f3e364151fbde
    priority=20
}
network={
    ssid=""
    psk=""
    priority=5
}
```

```
sudo systemctl restart wpa_supplicant.service
sudo service networking restart
```

## Install Webmin

```
wget http://prdownloads.sourceforge.net/webadmin/webmin\_2.021\_all.deb
sudo apt --fix-broken install
sudo dpkg -i webmin_2.021_all.deb
sudo apt -f install
service webmin status
```

## Install IoTStack

<https://sensorsiot.github.io/IOTstack/>

```
sudo apt install -y curl
curl -fsSL https://raw.githubusercontent.com/Sensorslot/IOTstack/master/install.sh | bash
Answer yes for installing python and docker
```

## New installation

### automatic (recommended)

1. Install `curl`:

```
$ sudo apt install -y curl
```

2. Run the following command:

```
$ curl -fsSL https://raw.githubusercontent.com/SensorsIot/IOTstack/master/insta
```

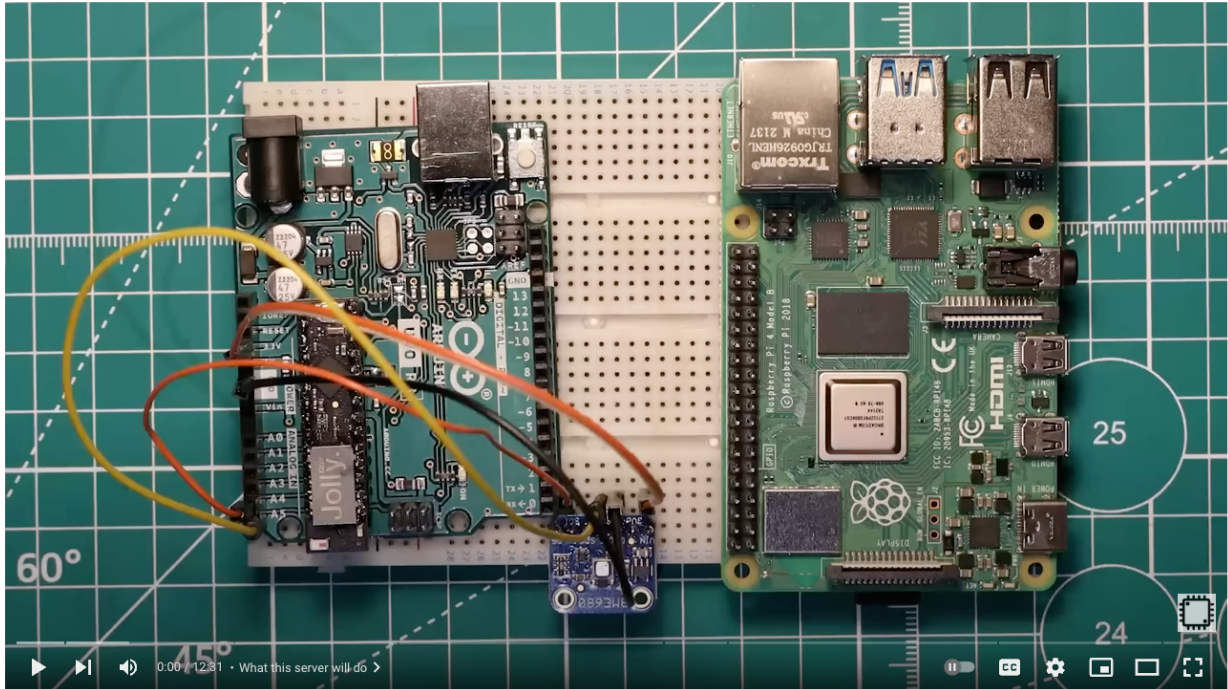
3. Run the menu and choose your containers:

```
$ cd ~/IOTstack  
$ ./menu.sh
```

4. Bring up your stack:

```
$ cd ~/IOTstack  
$ docker-compose up -d
```

From menu.sh, install InfluxDB, MQTT, Grafana, Node-RED & Docker Portainer  
Follow this tutorial: <https://www.youtube.com/watch?v= DO2wHI6JWQ&t=441s>



Raspberry Pi IoT Server Tutorial: InfluxDB, MQTT, Grafana, Node-RED & Docker

## Links

Portainer: <http://name.local:9000> ⇒ admin1234567 (this is what we set during the course, in case you defined another pass, make sure to use it)

Webmin: <https://name.local:10000> ⇒ same credentials as of the RPI

NodeRed: <http://name.local:1880>