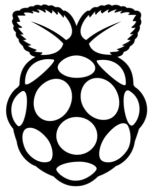
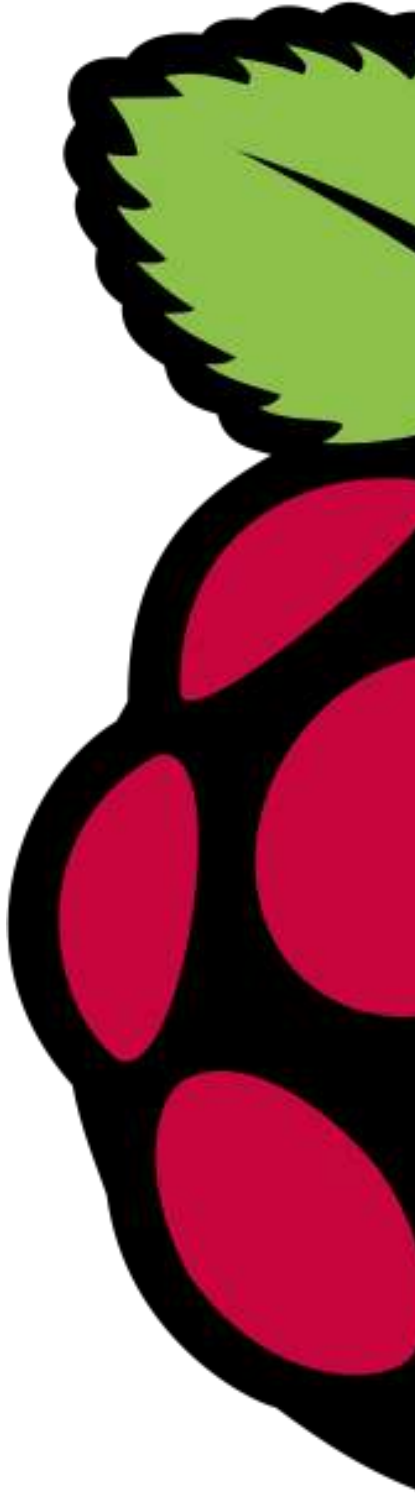


Raspberry Pi

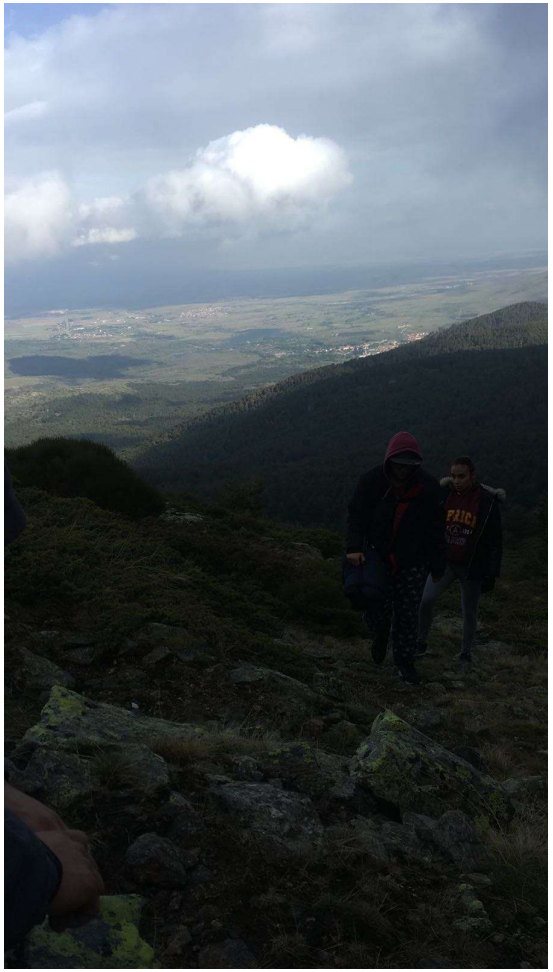
# Hackea tu casa con Raspberry Pi



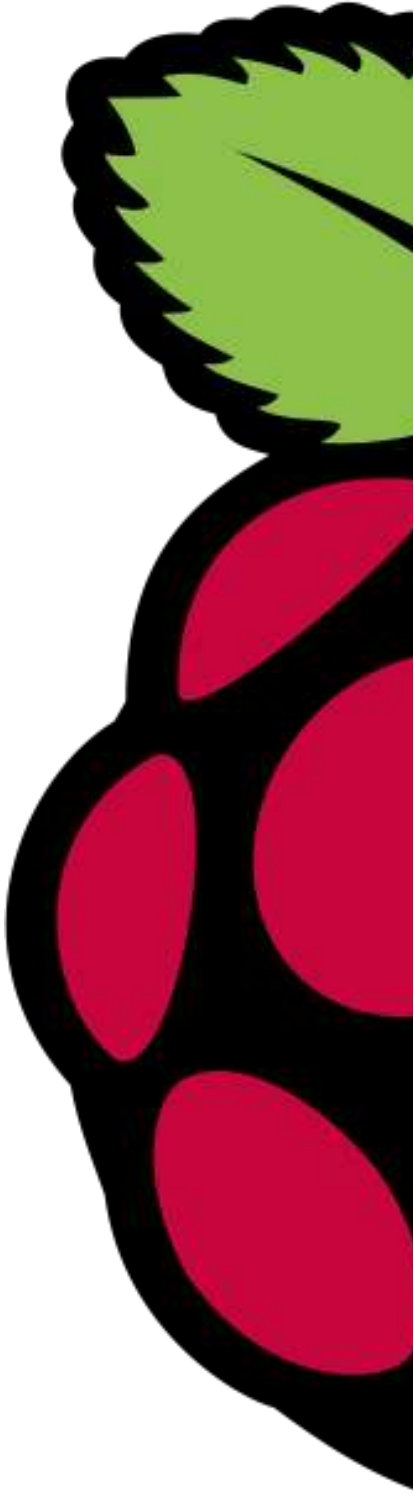
Por **Fran Acién**

# Raspberry Pi

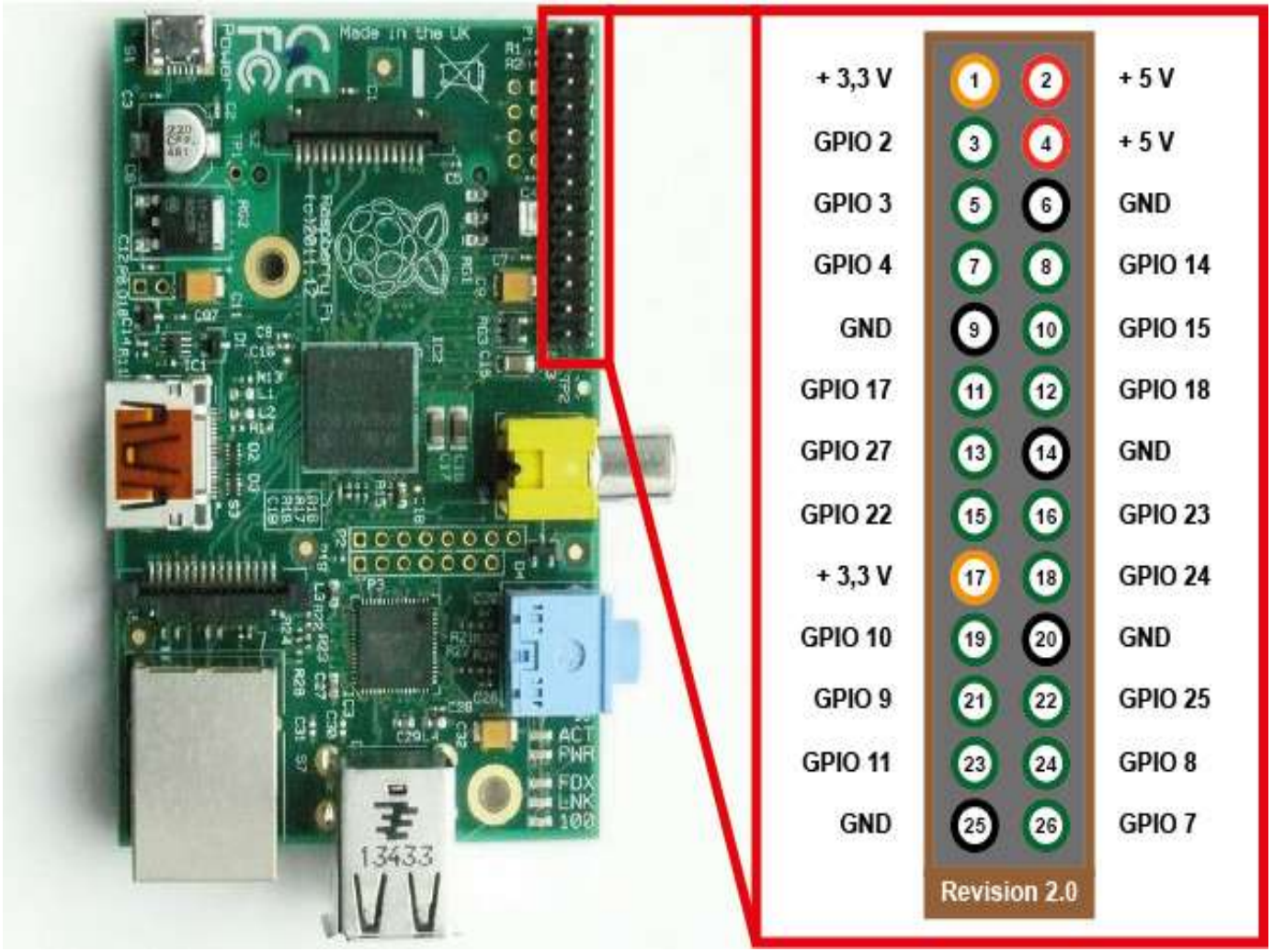
## Presentación



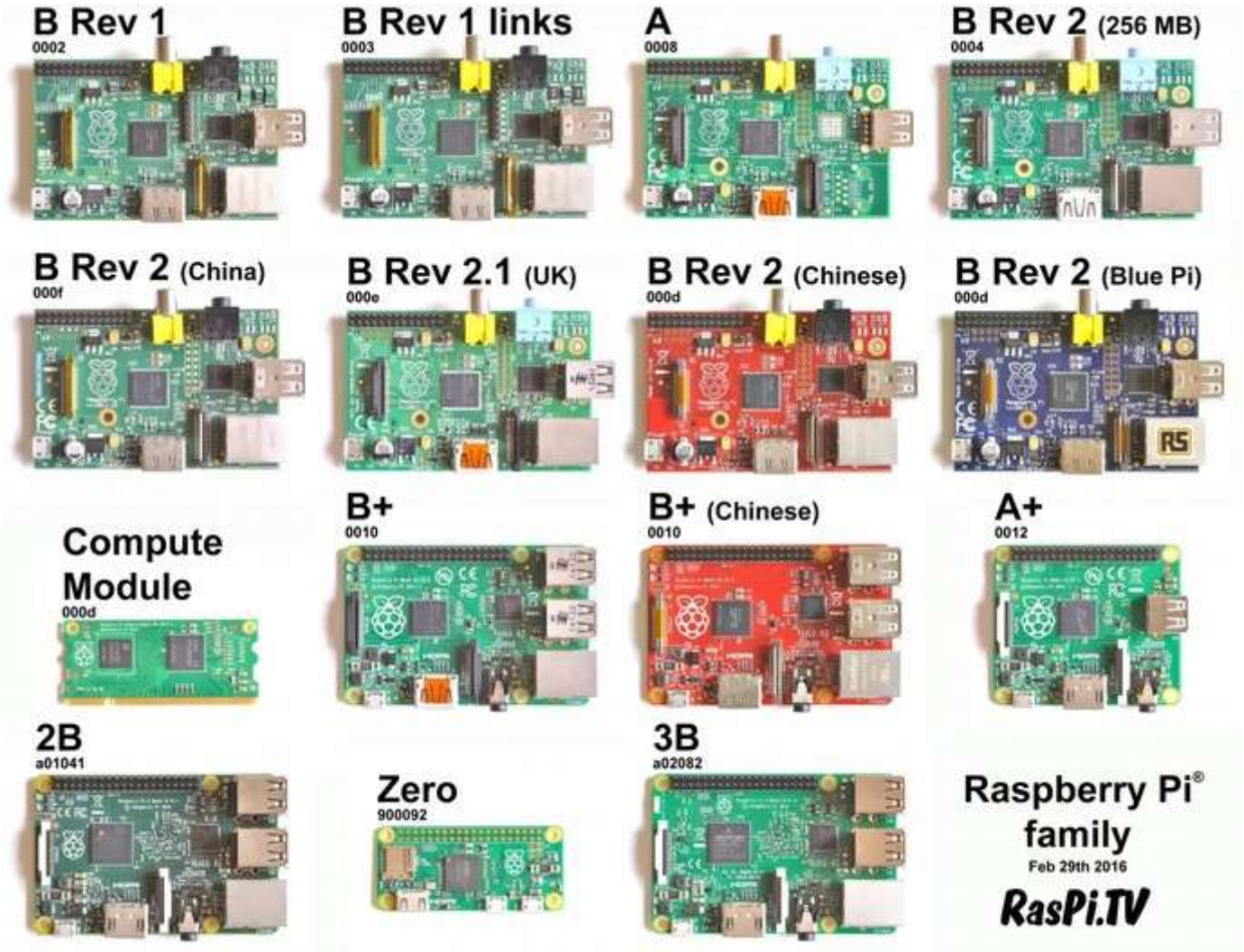
# Raspberry Pi



# Raspberry Pi

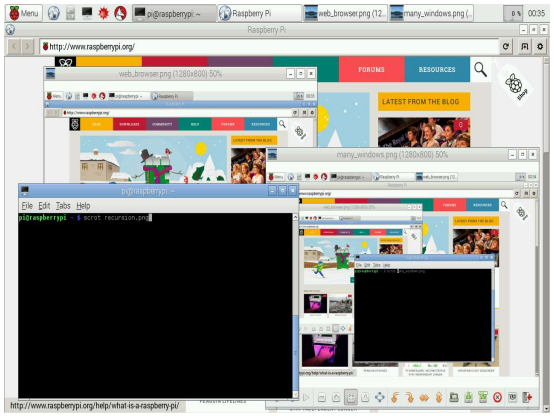


# Raspberry Pi

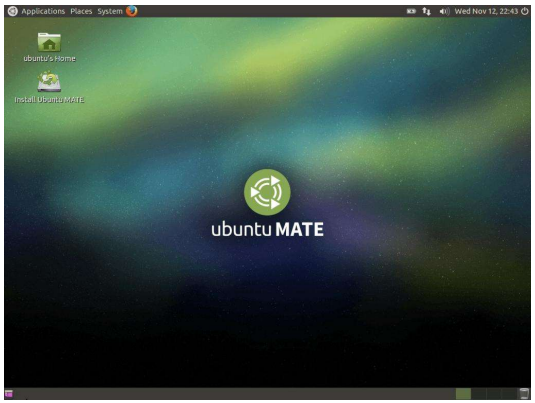


# Raspberry Pi

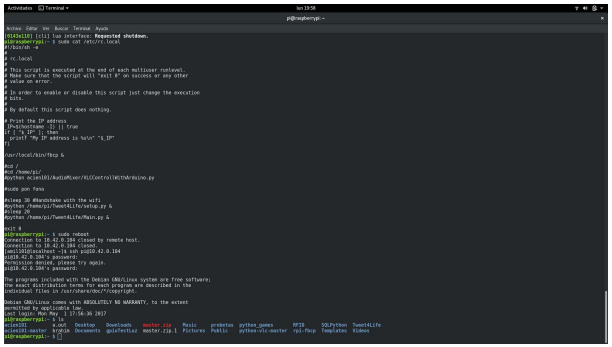
## Raspbian



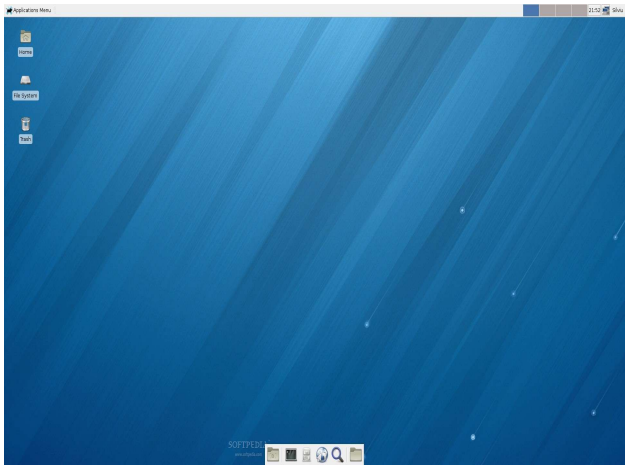

## Ubuntu mate




## Raspbian lite

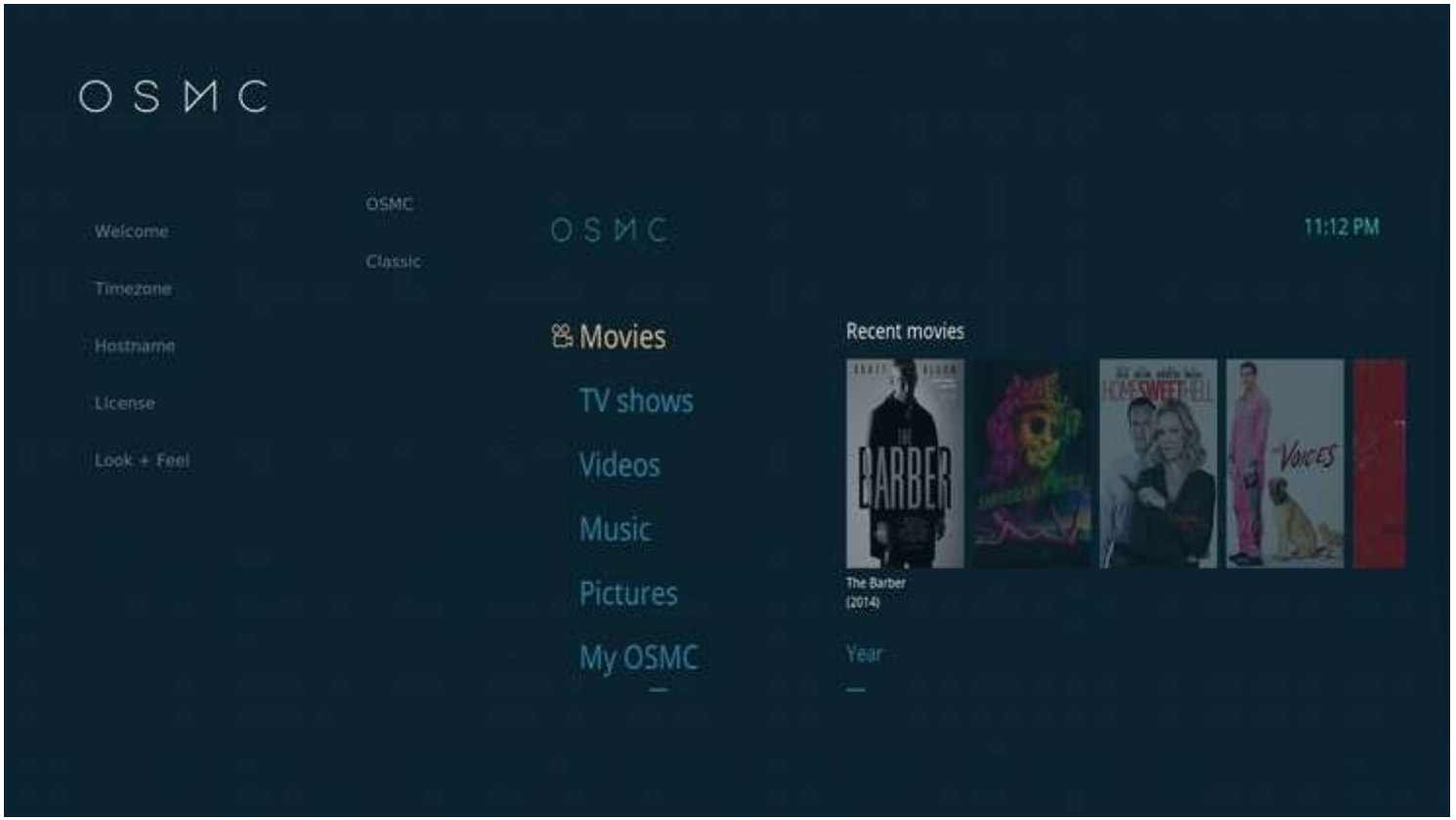


## Arch Linux



# Raspberry Pi

## OSMC



# Raspberry Pi

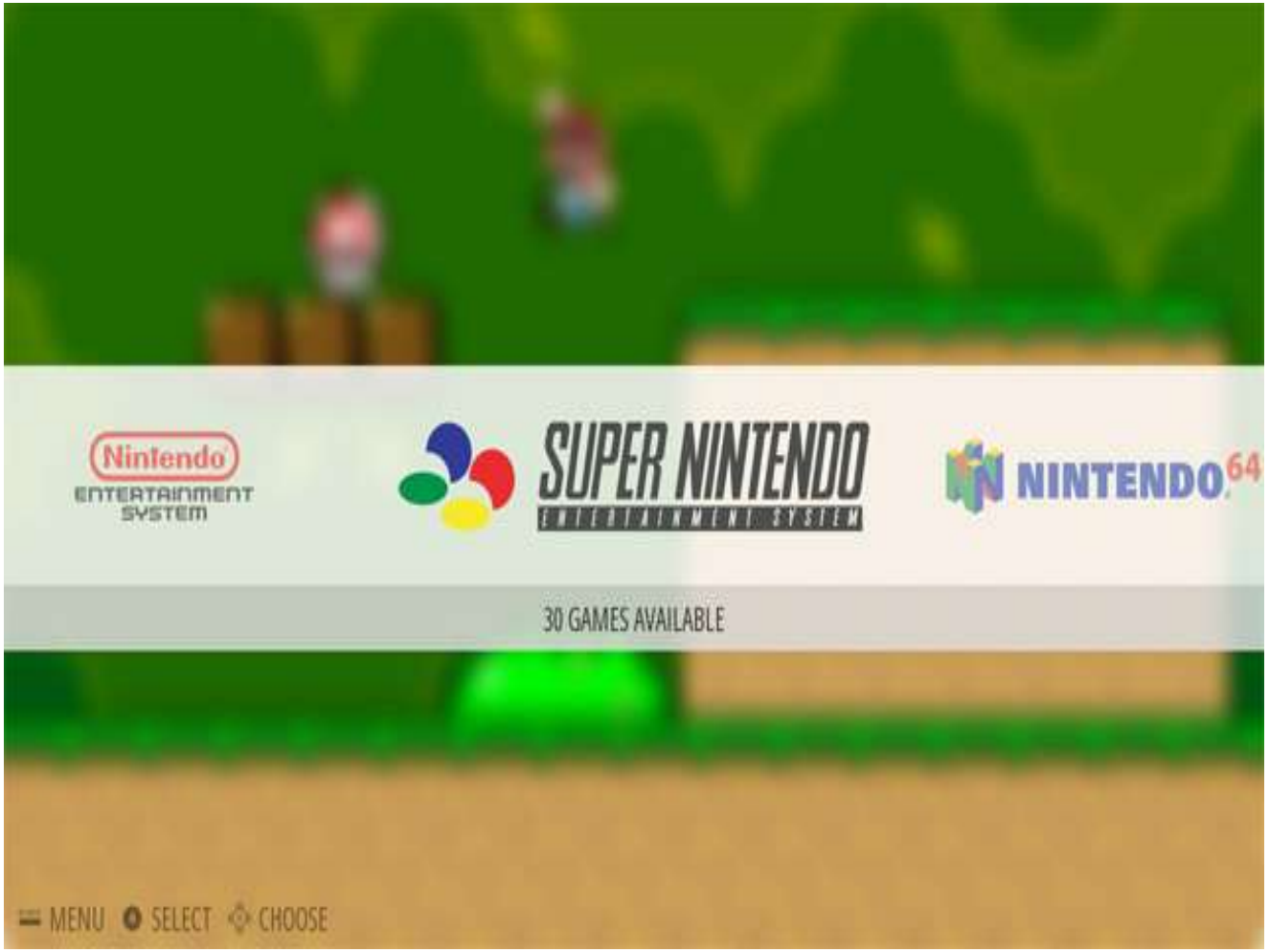
## KODI

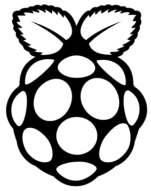
# Raspberry Pi

## Lakka

# Raspberry Pi

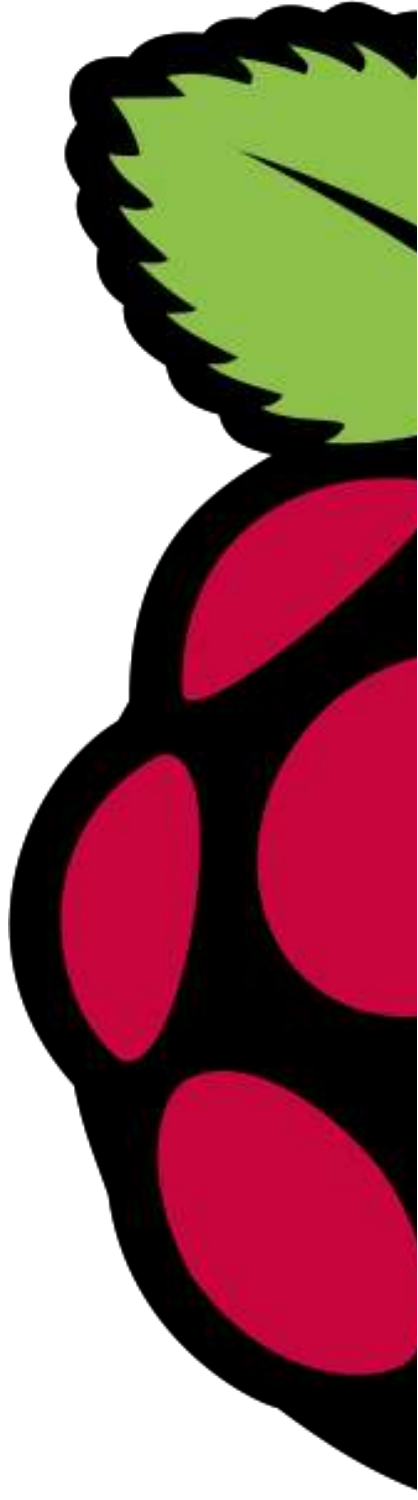
## Recalbox/Retropie





Raspberry Pi

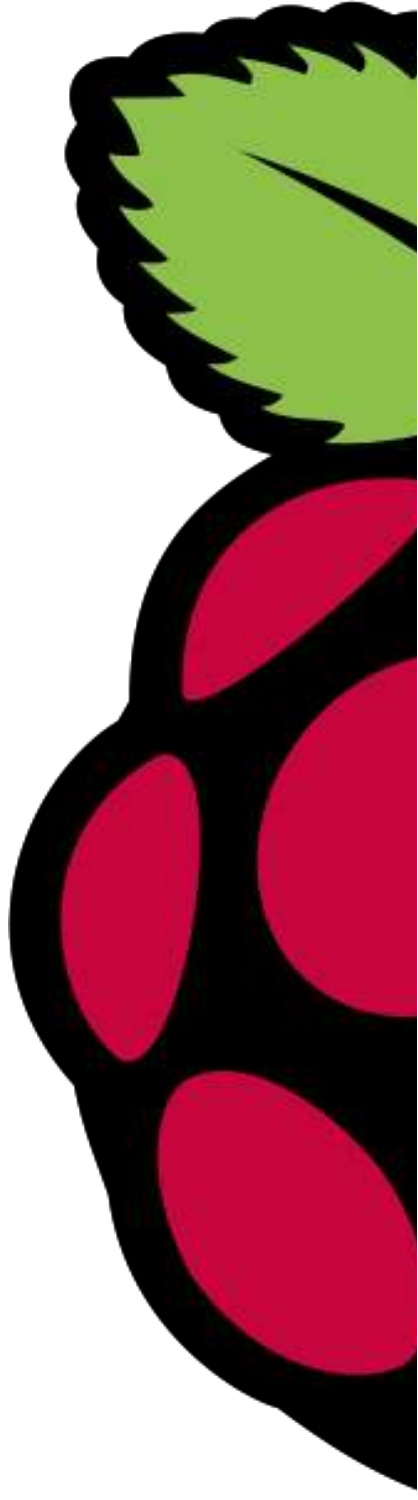
# Y... ¿Qué se puede hacer?



Raspberry Pi

# Eso depende de tí...

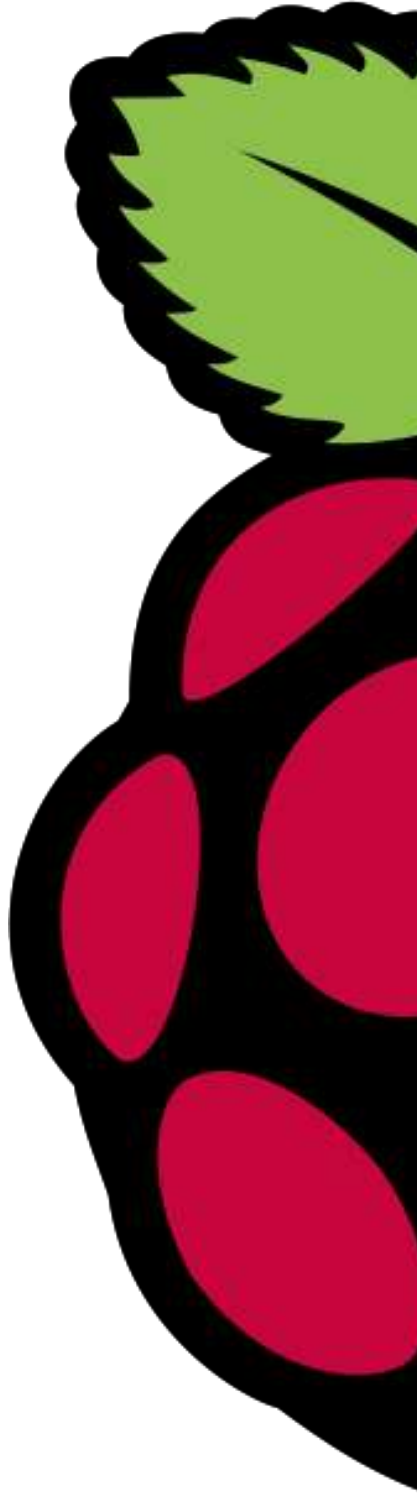
pero estos son algunos ejemplos



Raspberry Pi

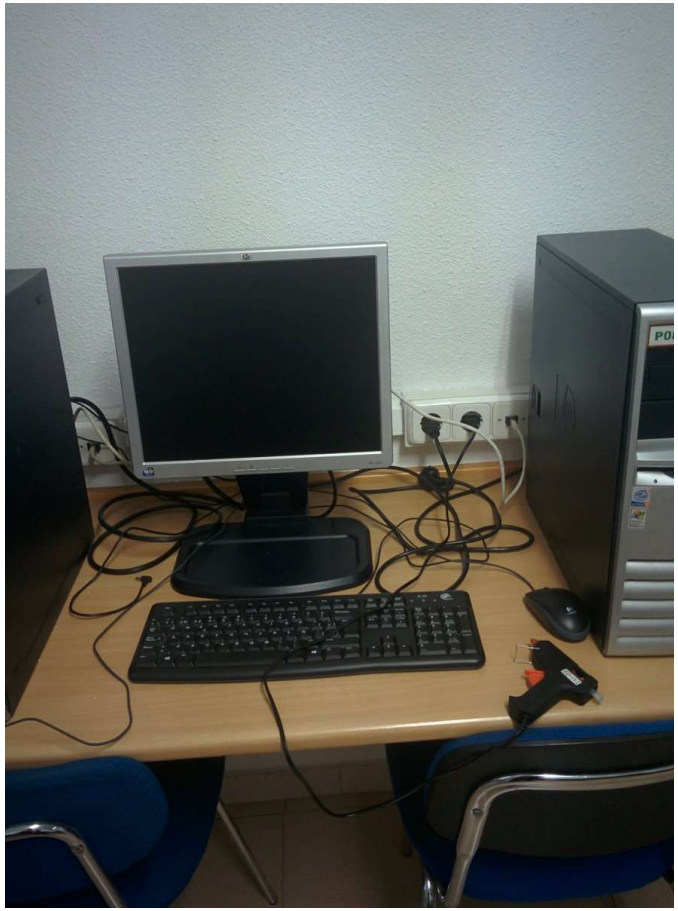
# NFC’s + Arduino + Raspberry Pi

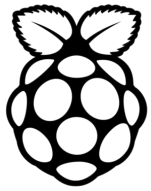
//video



# Raspberry Pi

## En mi colegio mayor



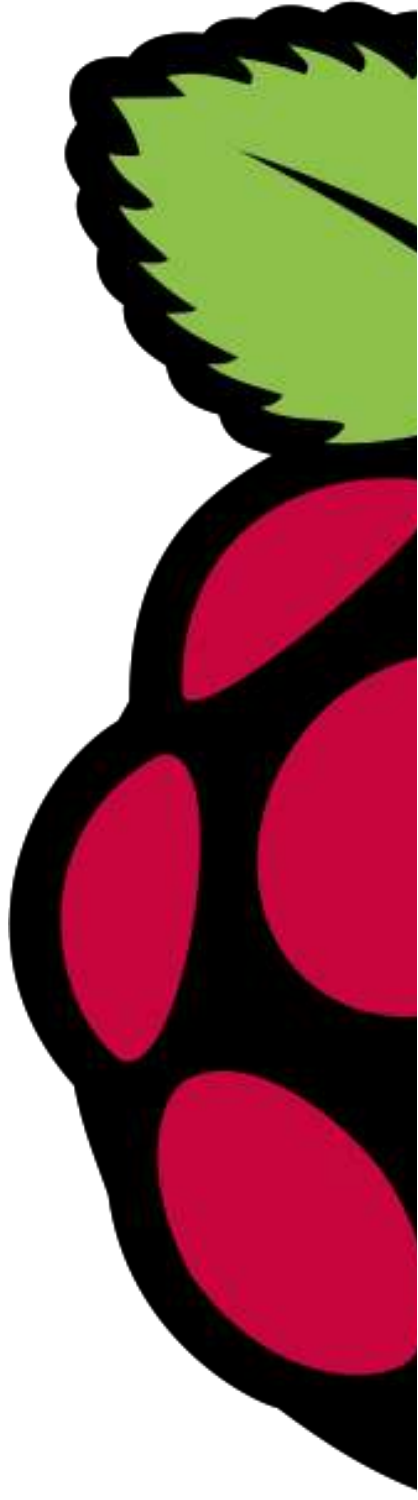


# Raspberry Pi

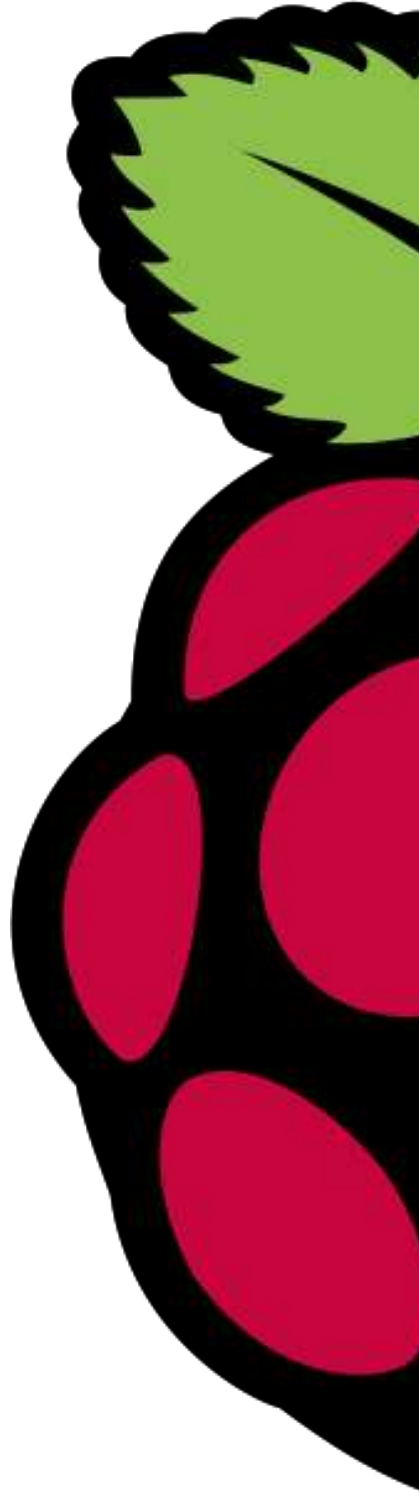
**Sitio:** Sala de informática de mi colegio mayor
**Servicios que tiene:**

* Samba
* FTP
* DLNA
* Bot de twitter
* Tranmission
* Flexget
* VNC
* SSH, para cuando estoy aburrido y quiero hacer Nmap o cosas así
* IDE en la nube (cloud9)

Basicamente, intento utilizar todos los protocolos que me deja mi red



# Raspberry Pi



## Samba

¿Qué es?

Es un protocolo para compartir archivos entre ordenadores de la misma red. Hay gran cantidad de exploradores de ficheros compatibles com Samba, en Android, IOS, Windows, Linux, etc.

¿Cómo se instala?

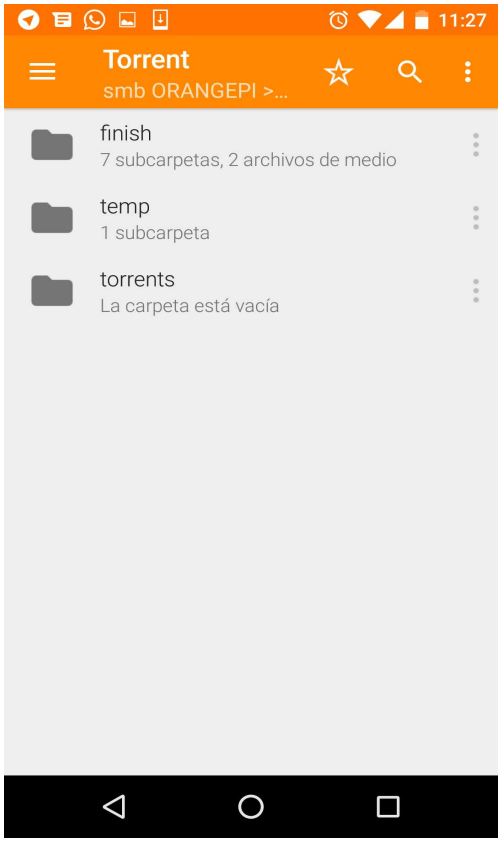
```
sudo apt-get install samba samba-common-bin
sudo nano -w /etc/samba/smb.conf
```

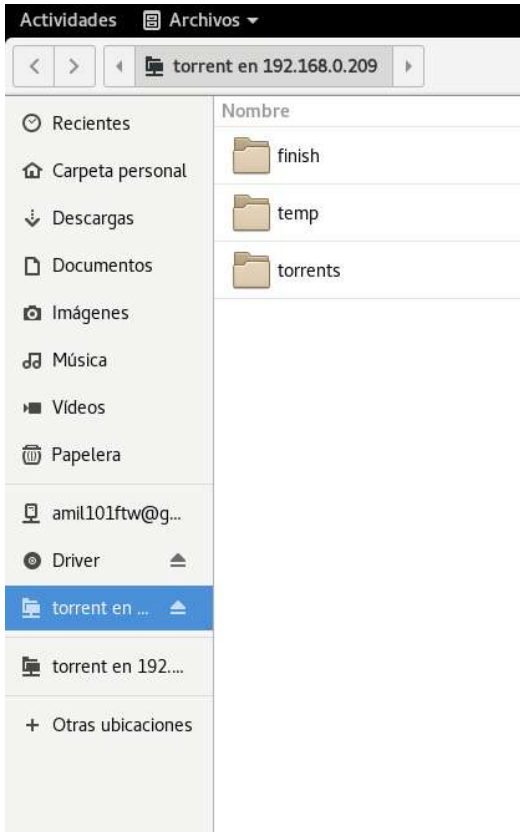
```
[Torrent]
        path = /root/torrent
        comment = Directory for torrents
        writable = yes
        browseable = yes
        guest ok = yes
        create mask = 0777
        directory mask = 0777
```

# Raspberry Pi

## Samba

## Resultado:

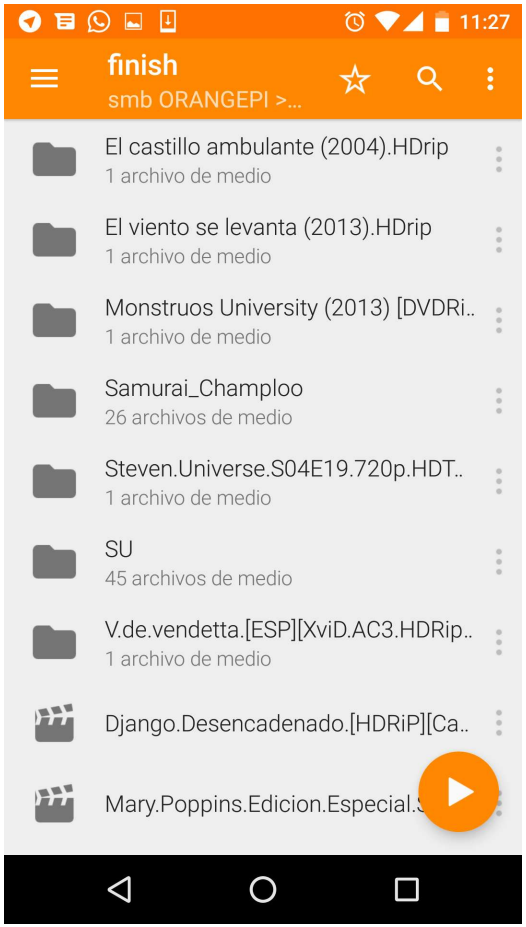


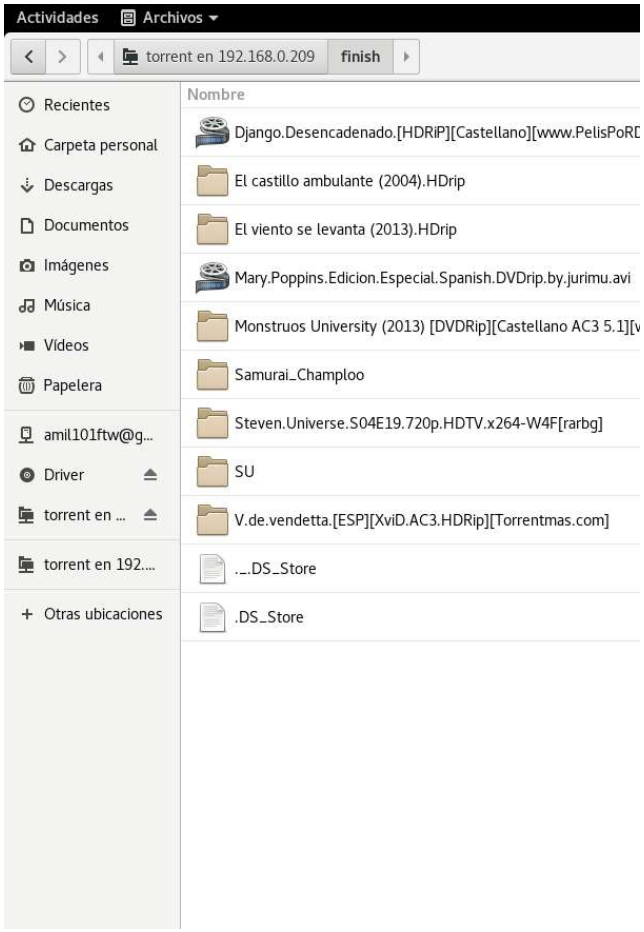



# Raspberry Pi

## Samba

## Resultado:

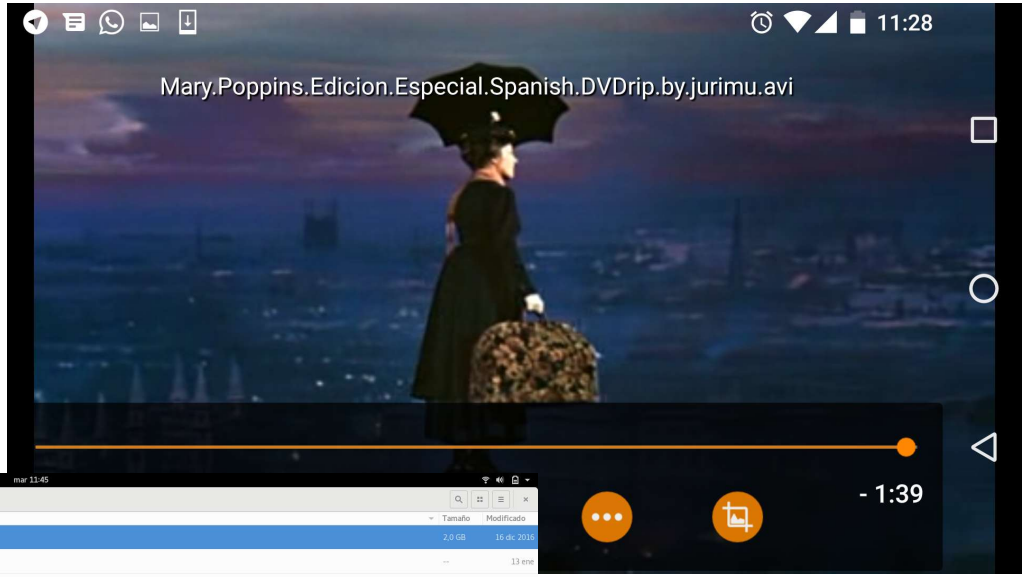


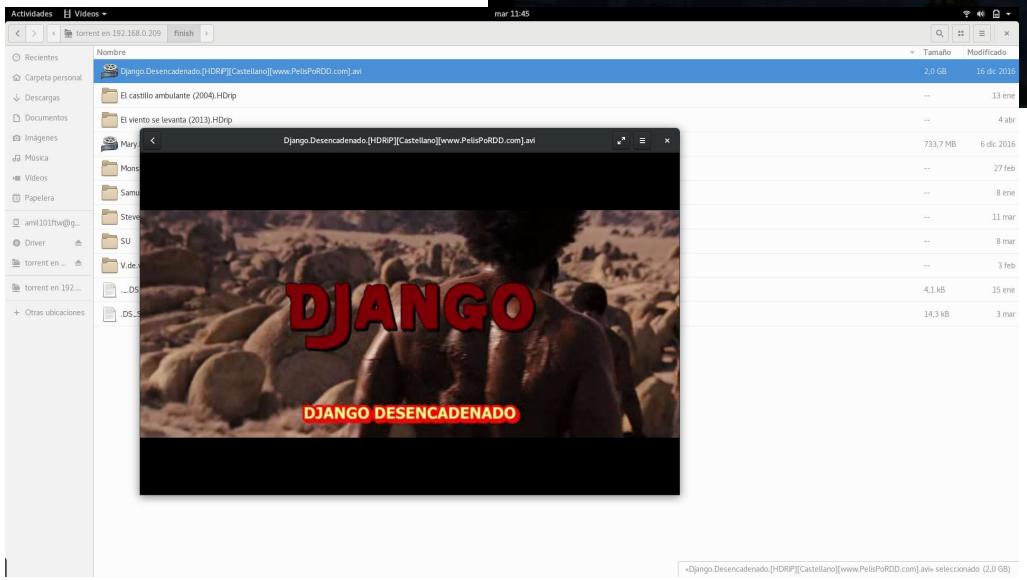



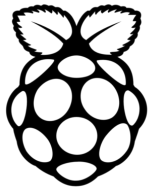
# Raspberry Pi

## Samba

## Resultado:





# Raspberry Pi

## DLNA/UPnP

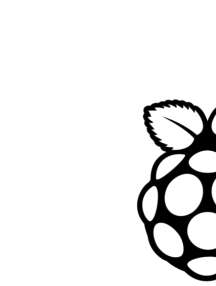
¿Qué es?

DLNA (Digital Living Network Alliance) es una organización fundada por Sony en 2003. Define unos standards para permitir compartir archivos en la misma red. DLNA está basado en UpnP. Lo divertido es que hay más de 9000 dispositivos con este protocolo, y posiblemente tu Smart TV lo tenga!

¿Cómo se instala?

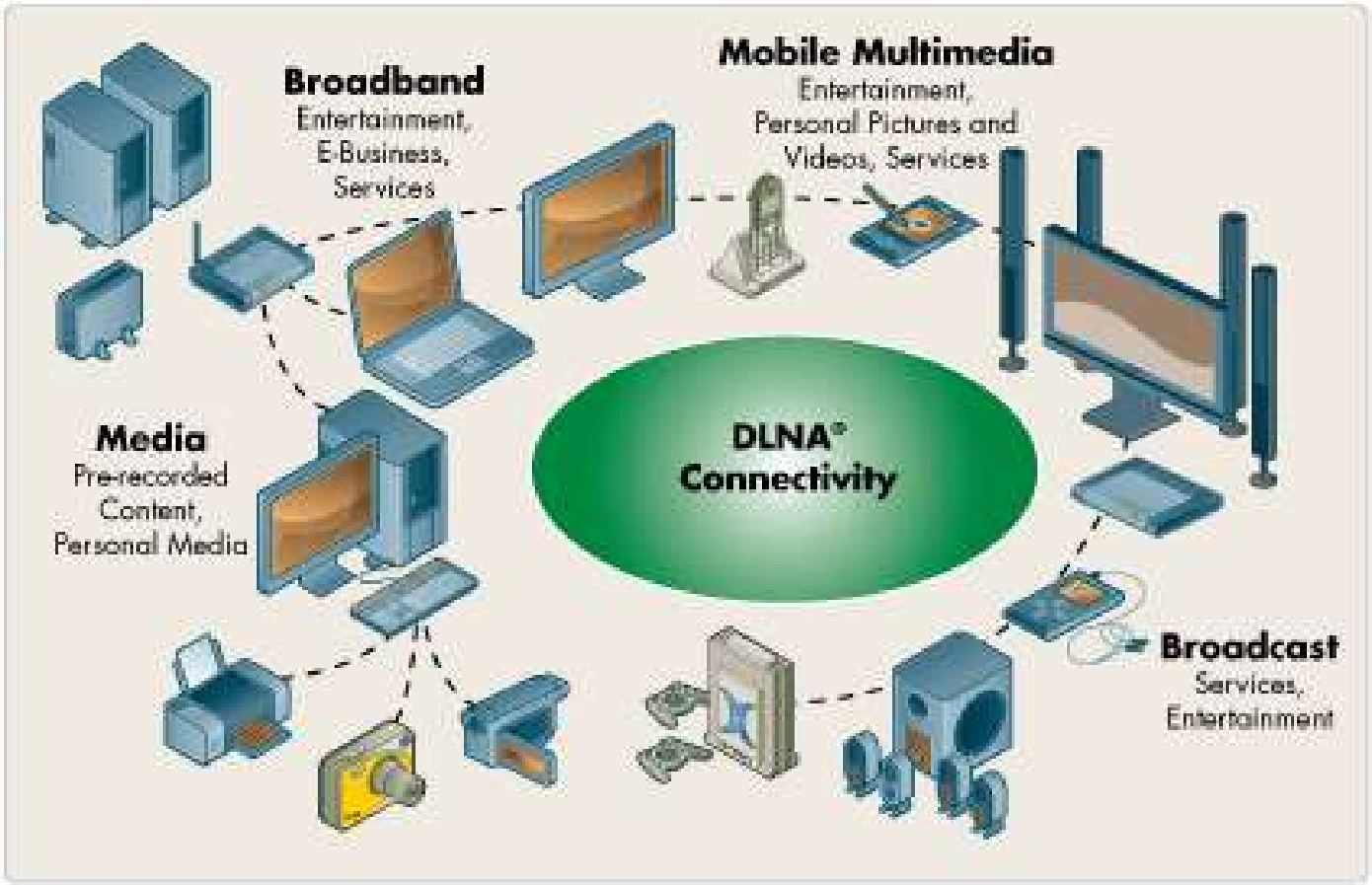
```
apt-get install minidlna
sudo nano/etc/minidlna.conf
```

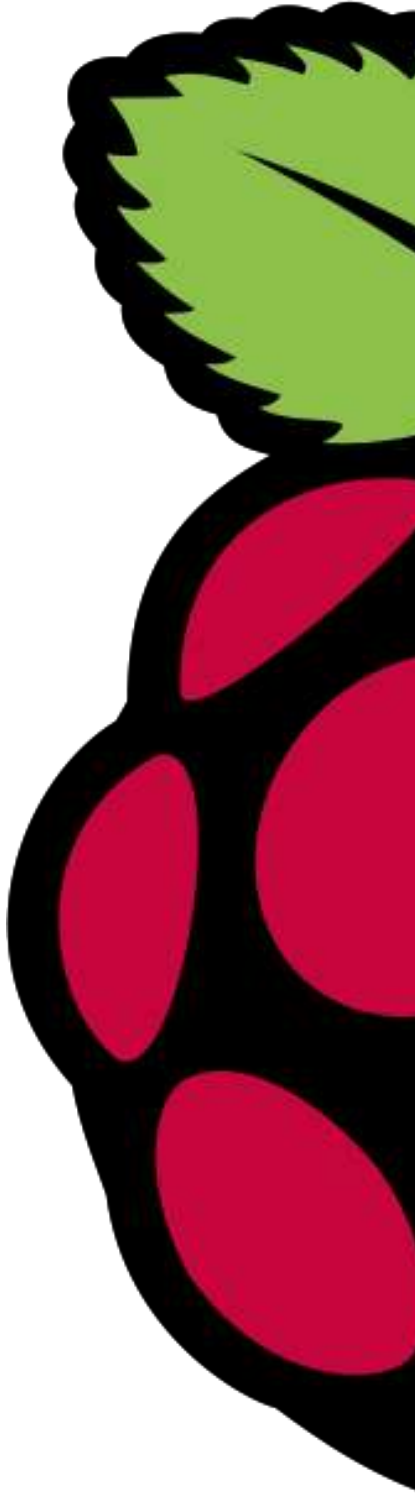
```
media_dir=A,/mnt/ext/Music
media_dir=P,/mnt/ext/Pictures
media_dir=V,/mnt/ext/Videos
friendly_name=Raspberry Pi
inotify=yes
```



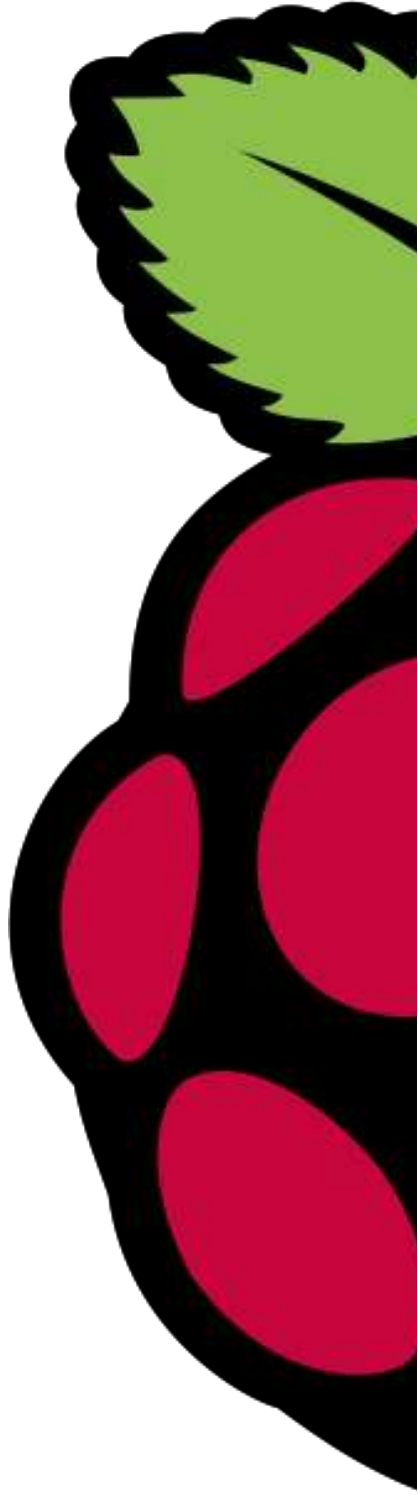
# Raspberry Pi

## DLNA/UPnP



# Raspberry Pi



## Transmission y Flexget

¿Qué es?

Transmission es un cliente P2P.
Flexget es un sistema de automatización de descarga de torrents escrito en python, que se subscribe a un rss con los links de descarga, y cuando sale una publicación nueva directamente se la descarga.

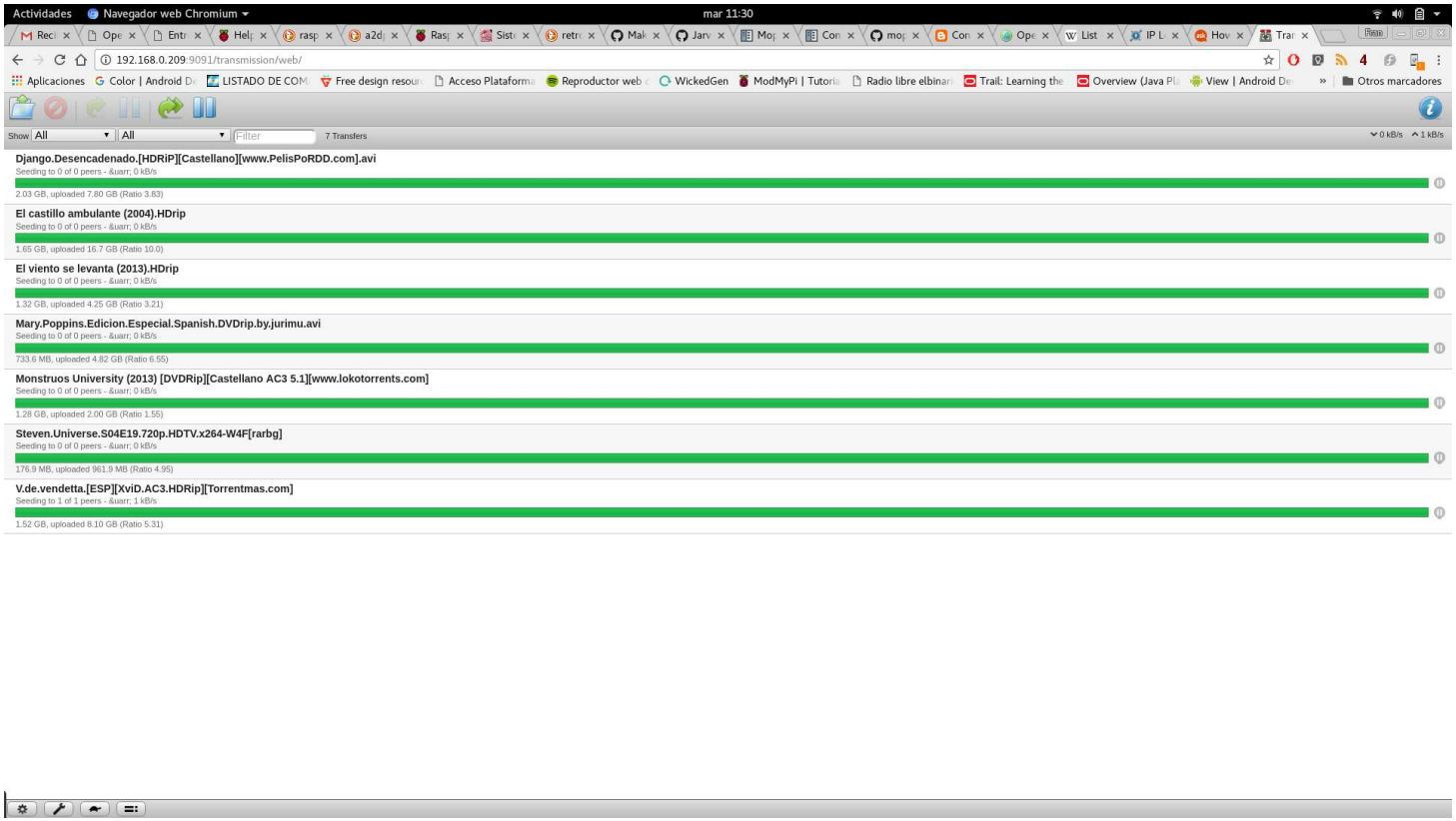
¿Cómo se instala?

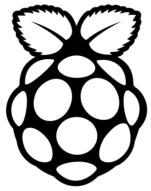
```
sudo apt-get install transmission-daemon
sudo nano /etc/transmission-daemon/settings.json
```

```
sudo pip install flexget
sudo mkdir /home/pi/.flexget
sudo chown -R pi /home/pi/.flexget
sudo chgrp -R pi /home/pi/.flexget
nano /home/pi/.flexget/config.yml
```

# Raspberry Pi

## Transmission y Flexget



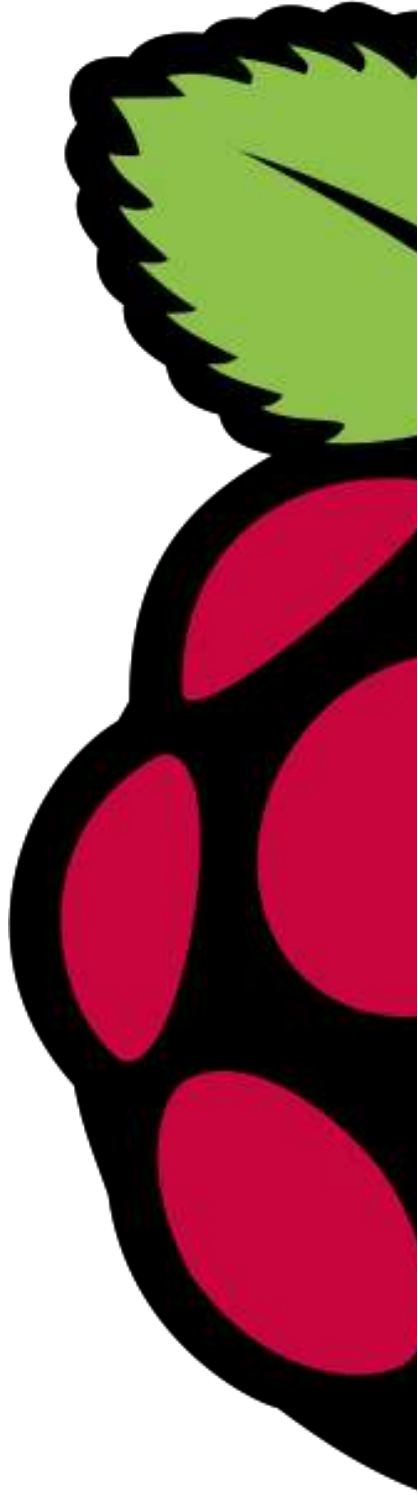


# Raspberry Pi

## Transmission y Flexget

### Flexget:

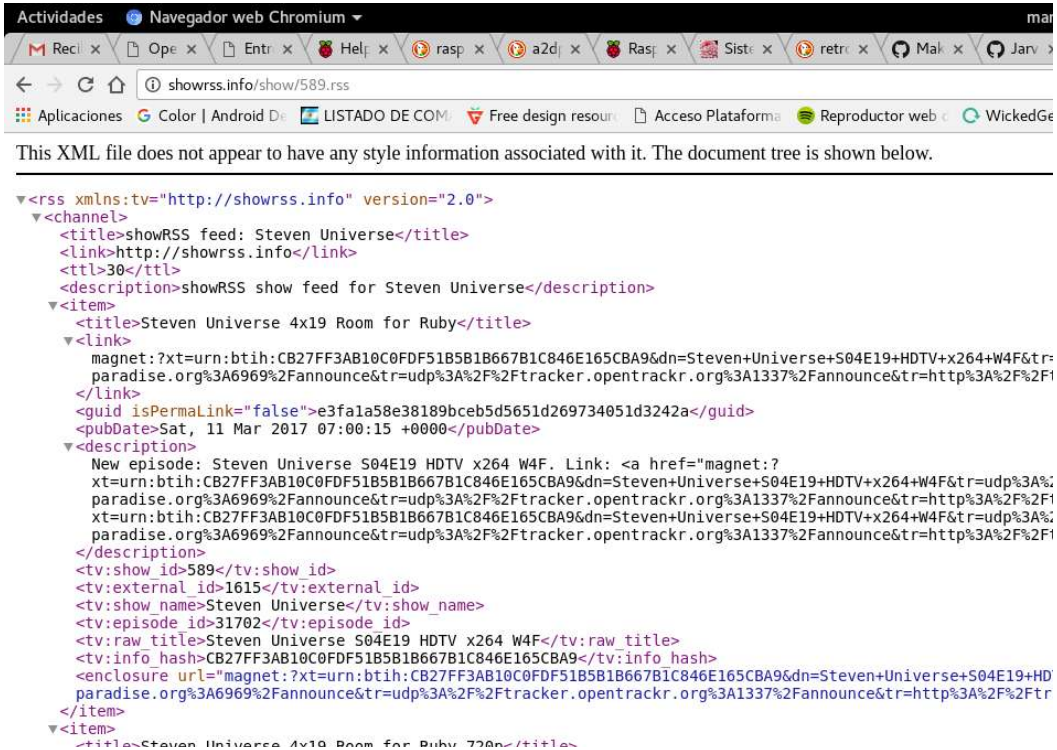
```
tasks:
  test task:
    rss: http://showrss.info/show/589.rss
    all_series: yes
    transmission:
      host: localhost
      port: 9091
      username: ''
      password: ''
      ratio: -1
      main_file_only: yes
      path: /root/torrent/finish
      addpaused: no
      skip_files:
        - '*.nfo'
        - '*.sfv'
        - '*[sS]ample*'
        - '*.txt'
```



# Raspberry Pi

## Transmission y Flexget

### Flexget:



# Raspberry Pi

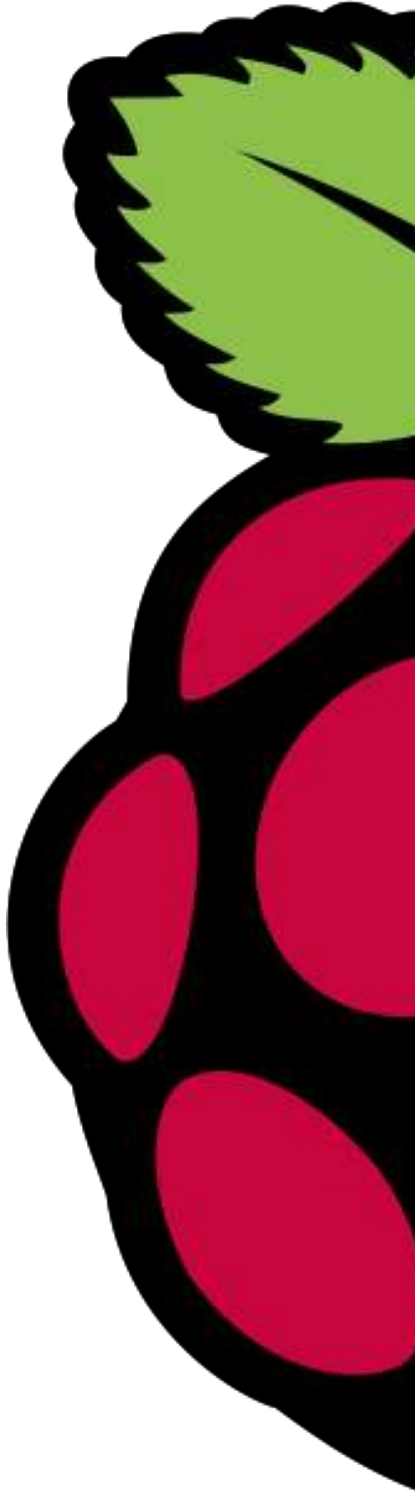
## VNC

¿Qué es?

VNC es un software que nos permite tomar el control del ordenador servidor remotamente a través de un ordenador cliente, es decir, un escritorio remoto.

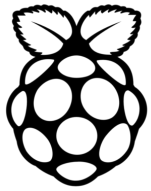
¿Cómo se instala?

```
sudo apt-get install tightvncserver
tightvncserver
sudo reboot
vncserver :0
```

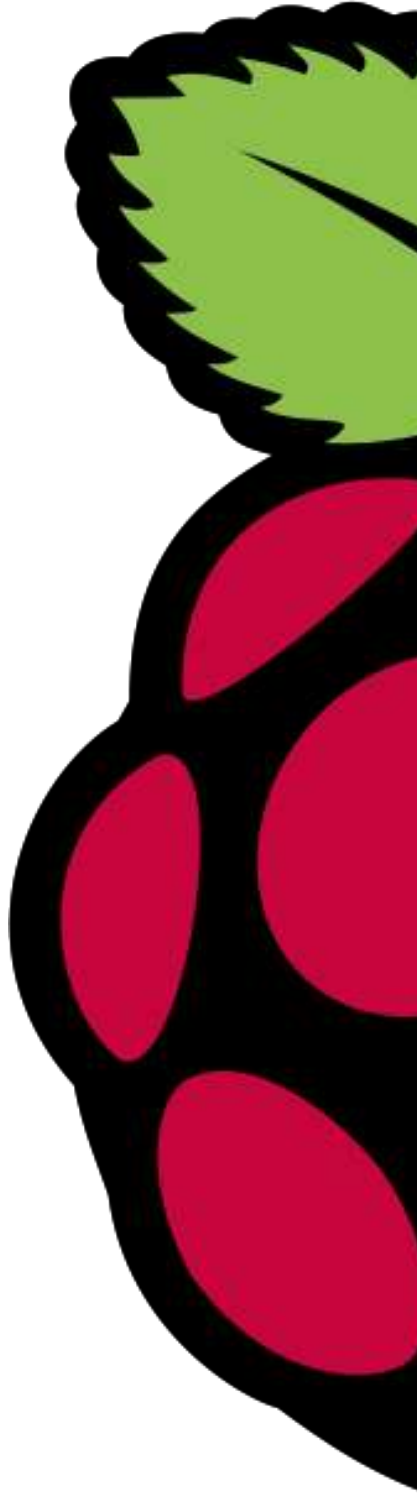


# Raspberry Pi

## VNC



# Raspberry Pi



## IDE en la nube, Cloud9

¿Qué es?

Un IDE en la nube es cómo el típico IDE que utilizamos para programar pero que accedemos a el desde el navegador. Cloud9 es una empresa de software libre que nos da el servicio de IDE en la nube, pero además, de poder descargarlo y hacerlo funcionar desde nuestra raspberry.

¿Cómo se instala?

```
wget http://nodejs.org/dist/v0.10.28/node-v0.10.28-linux-arm-pi.tar.gz
cd /usr/local
tar -xzf ~/node-v0.10.28-linux-arm-pi.tar.gz —-strip=1
export NODE_PATH=”/usr/local/lib/node_modules”
git clone git://github.com/c9/core.git c9sdk
cd c9sdk
scripts/install-sdk.sh
```

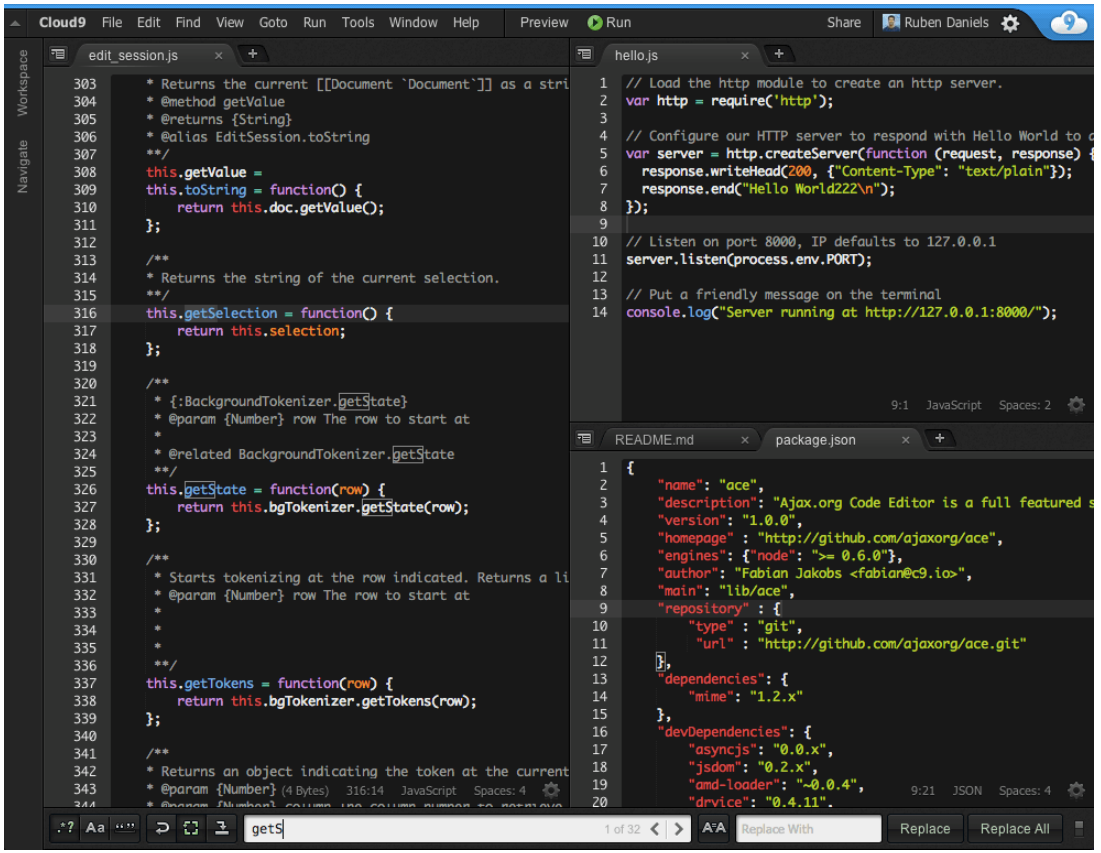
# Raspberry Pi

## IDE en la nube, Cloud9

Hacemos ...

```
./server.js -l 0.0.0.0
```

y boalá



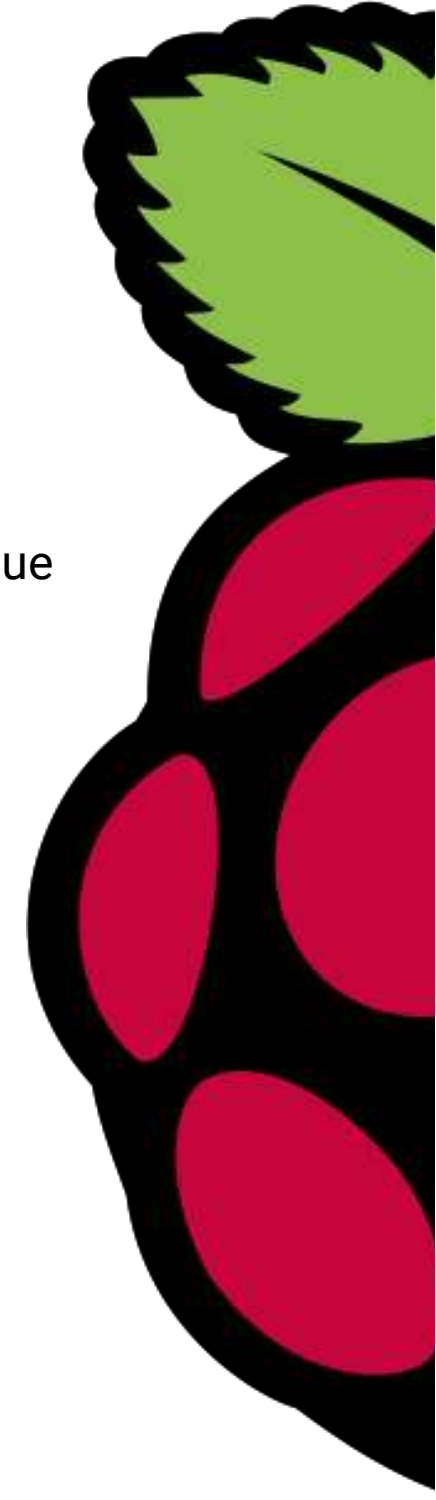
# Raspberry Pi

**Bot de Twitter**

¿Qué hace?

Me escribe un mensaje con la dirección IP de la placa para que sea mucho más sencillo saber donde está conectada.

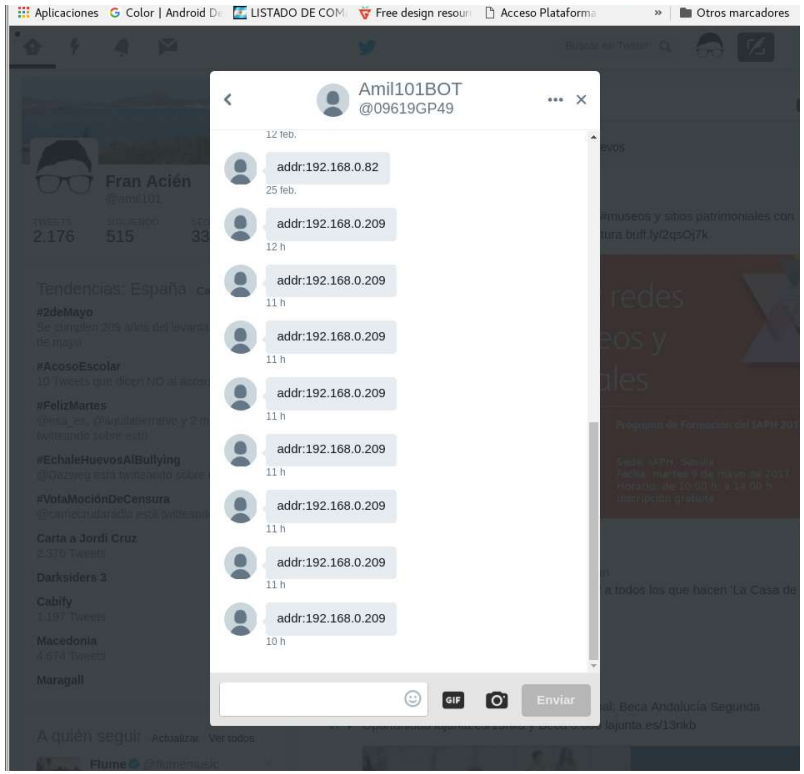
```
import DATA
import tweepy
import sys

auth = tweepy.OAuthHandler(consumer_key,
consumer_secret)
auth.set_access_token(access_token,
access_token_secret)

api = tweepy.API(auth)

api.send_direct_message(user = "amil101", text =
sys.argv[1])
```

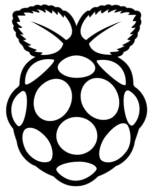


# Raspberry Pi

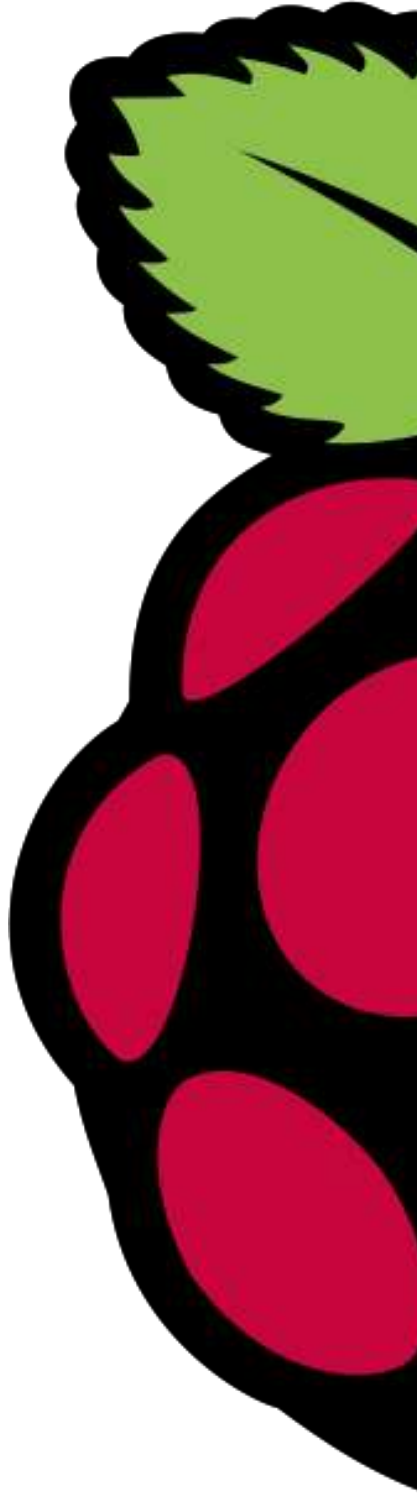
## Bot de Twitter

```
python /root/sendIP.py `sudo ifconfig | grep "inet " | grep -Fv 127.0.0.1 | awk '{print $2}'`
```





# Raspberry Pi



## A2DP

¿Qué es?

A2DP, Advanced Audio Distribution Profile, es un perfil de Bluetooth que nos permite compartir audio remotamente a traves de bluetooth desde un emisor A2DP (un smartphone, linux, etc.) a un receptor A2DP (nuestra Raspberry Pi).

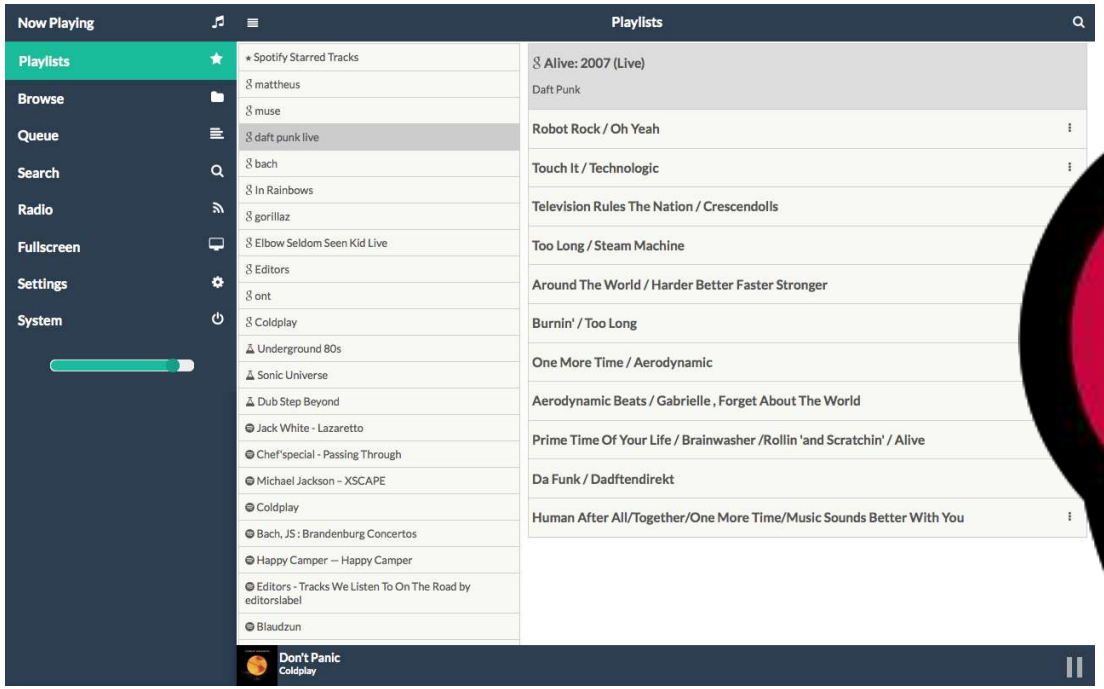
¿Cómo instalarlo?

Para instalarlo primero necesitamos nuestro módulo bluetooth y configurar los drivers.

**https://gist.github.com/oleq/24e09112b07464acbda1**

# Raspberry Pi

## Pi Music Box / Mopidy



# Raspberry Pi

## Pi Music Box / Mopidy

¿Cómo se instala?

```
wget -q -O - https://apt.mopidy.com/mopidy.gpg | sudo apt-key add -
sudo wget -q -O /etc/apt/sources.list.d/mopidy.list https://apt.mopidy.com/jessie.list
sudo apt-get update
sudo apt-get install mopidy
```

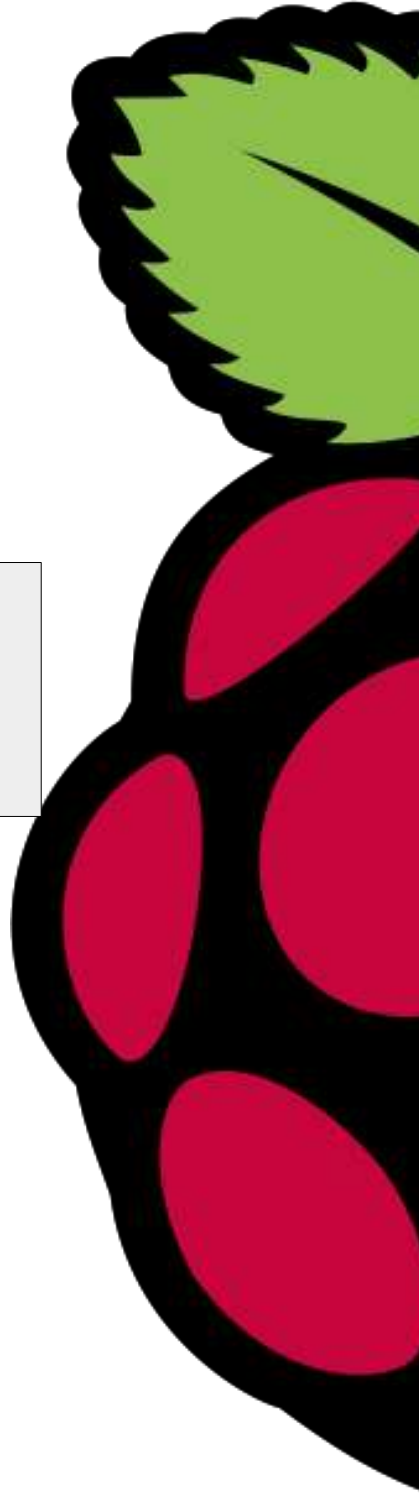
¿Cómo se configura?

Para instalar una extensión, como por ejemplo la de spotify:

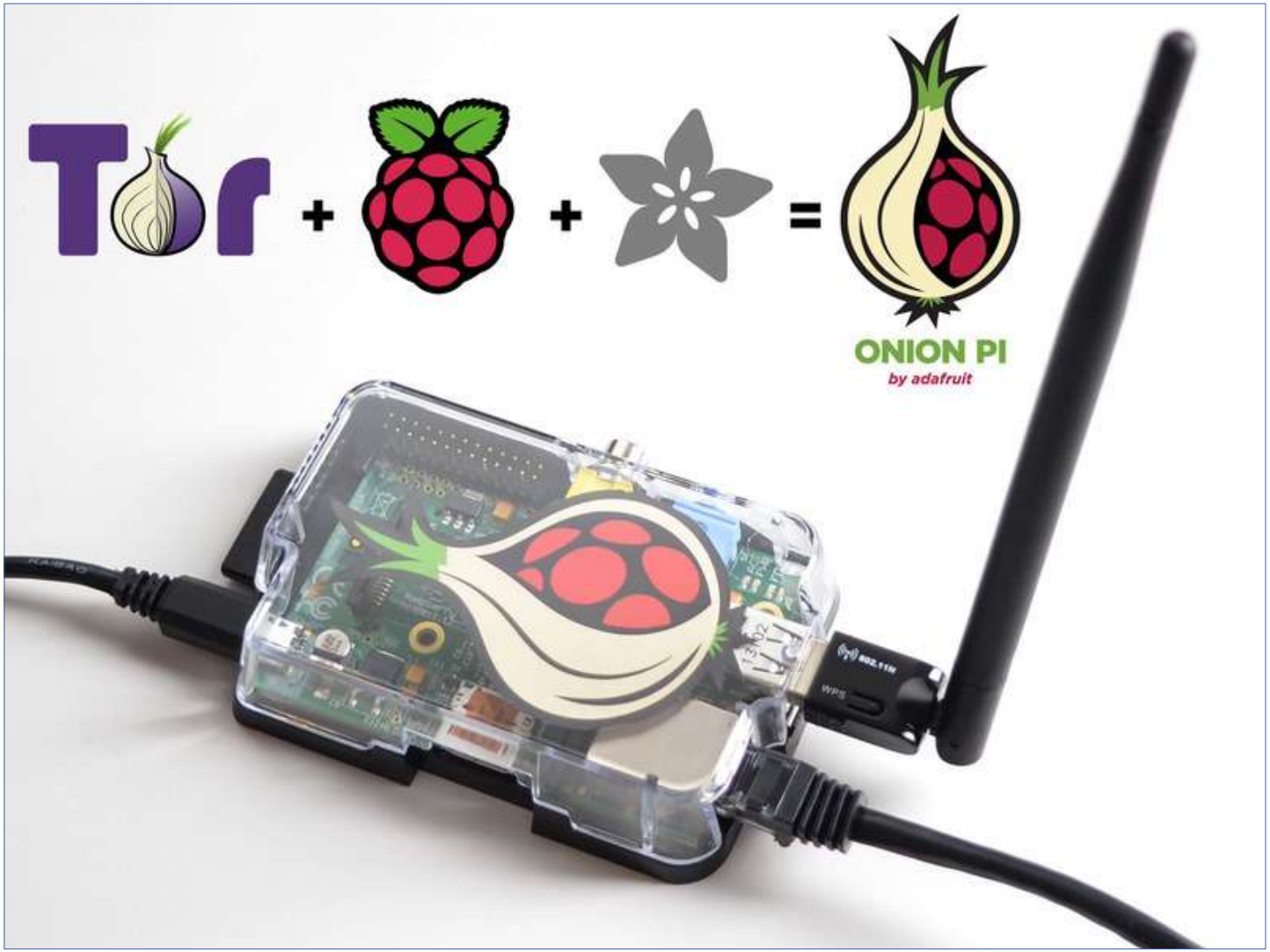
```
sudo apt-get install mopidy-spotify
```

Nos vamos a ~/.config/mopidy/mopidy.conf y añadimos

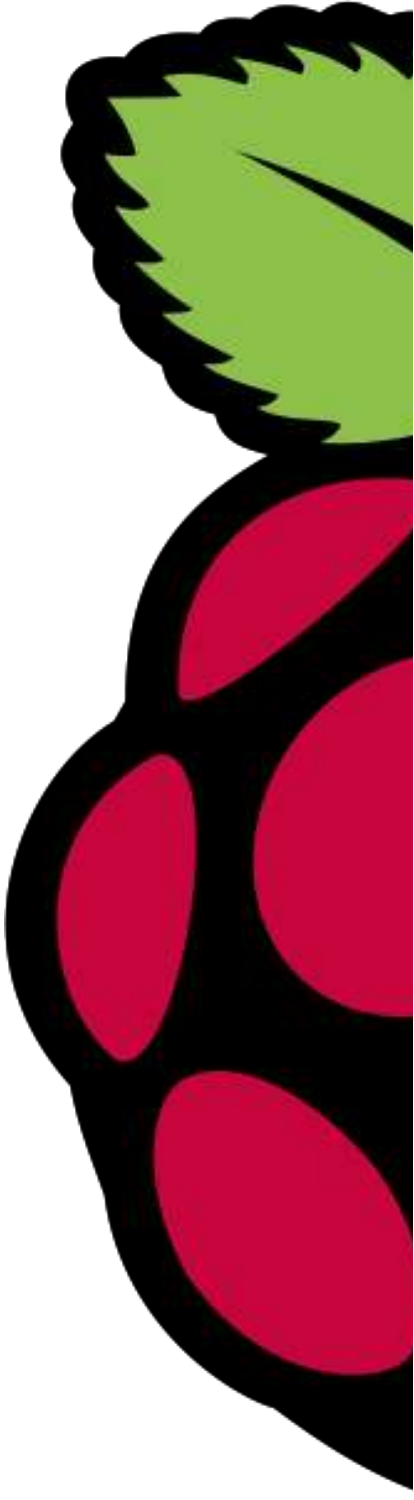
```
[spotify]
username = alice
password = secret
```



# Raspberry Pi

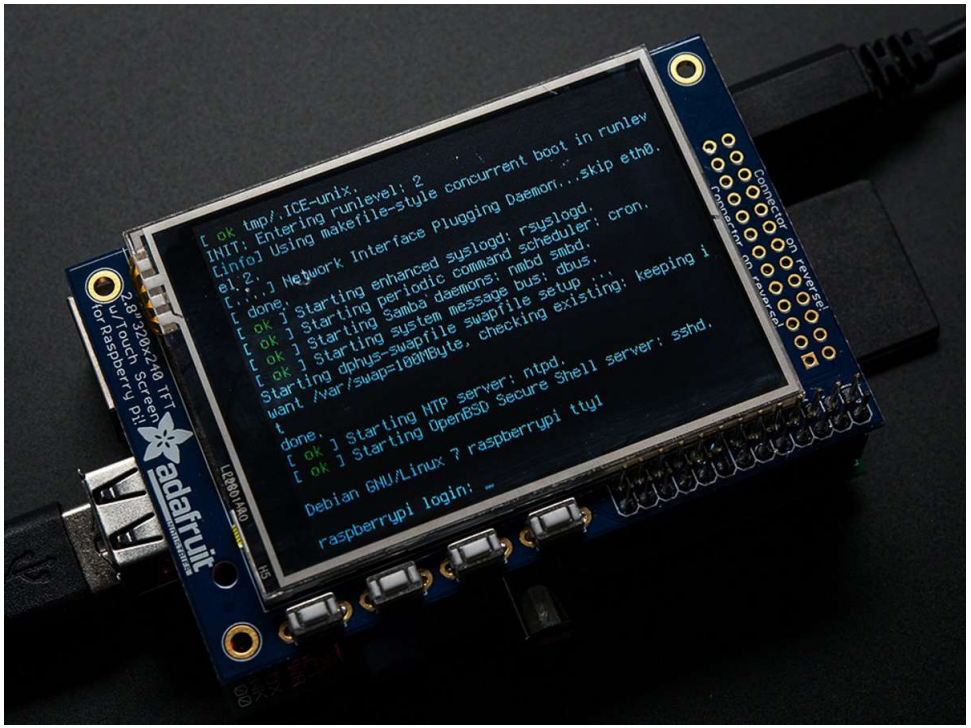


# Raspberry Pi



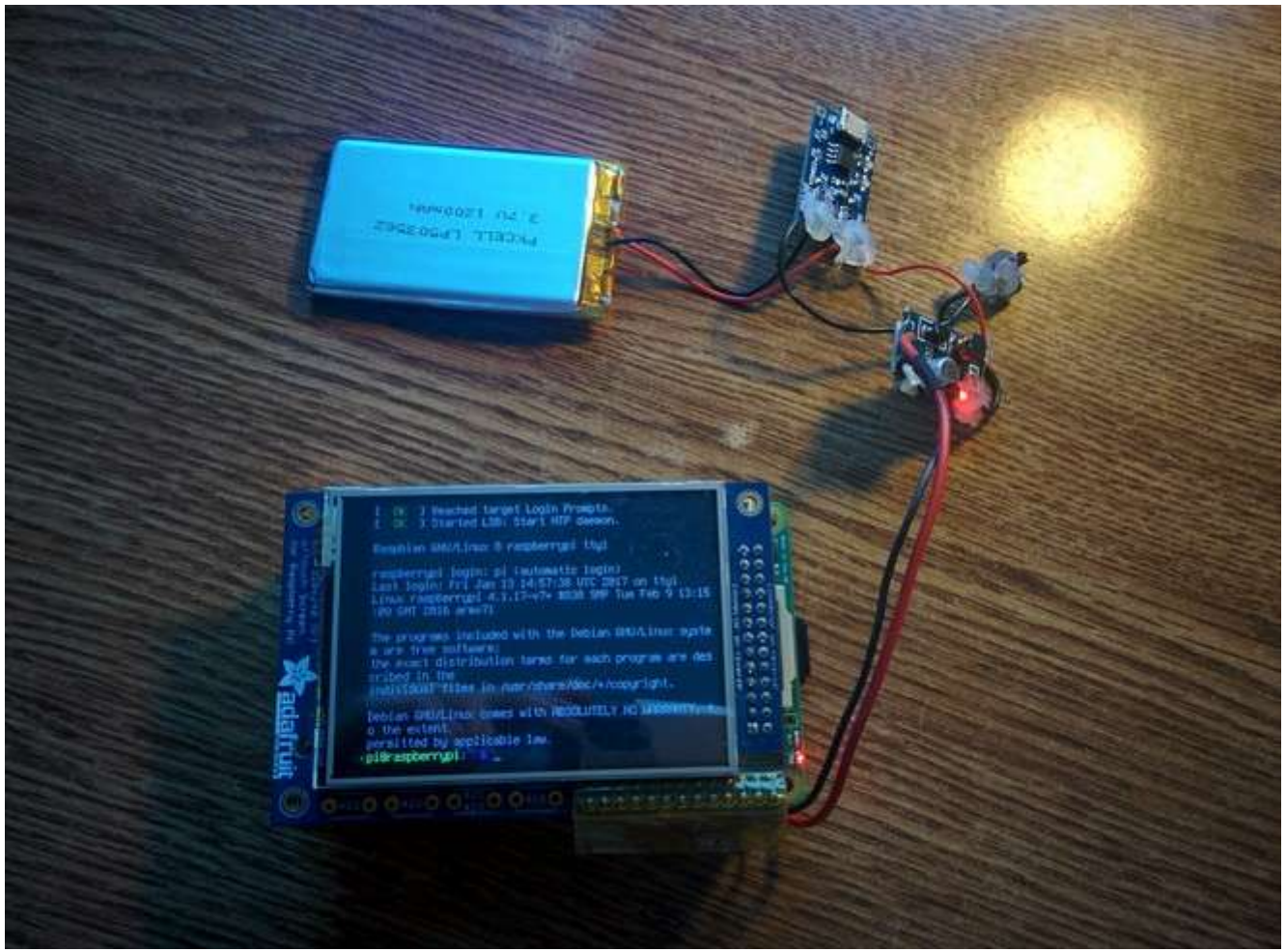
# Raspberry Pi

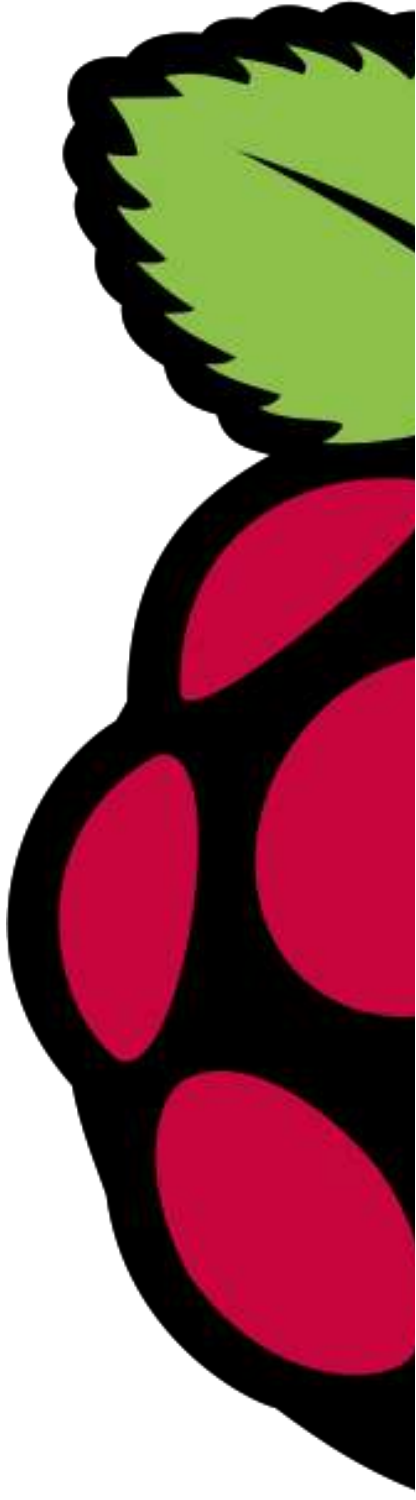
## Raspberry + TFT



# Raspberry Pi

## Raspberry + TFT

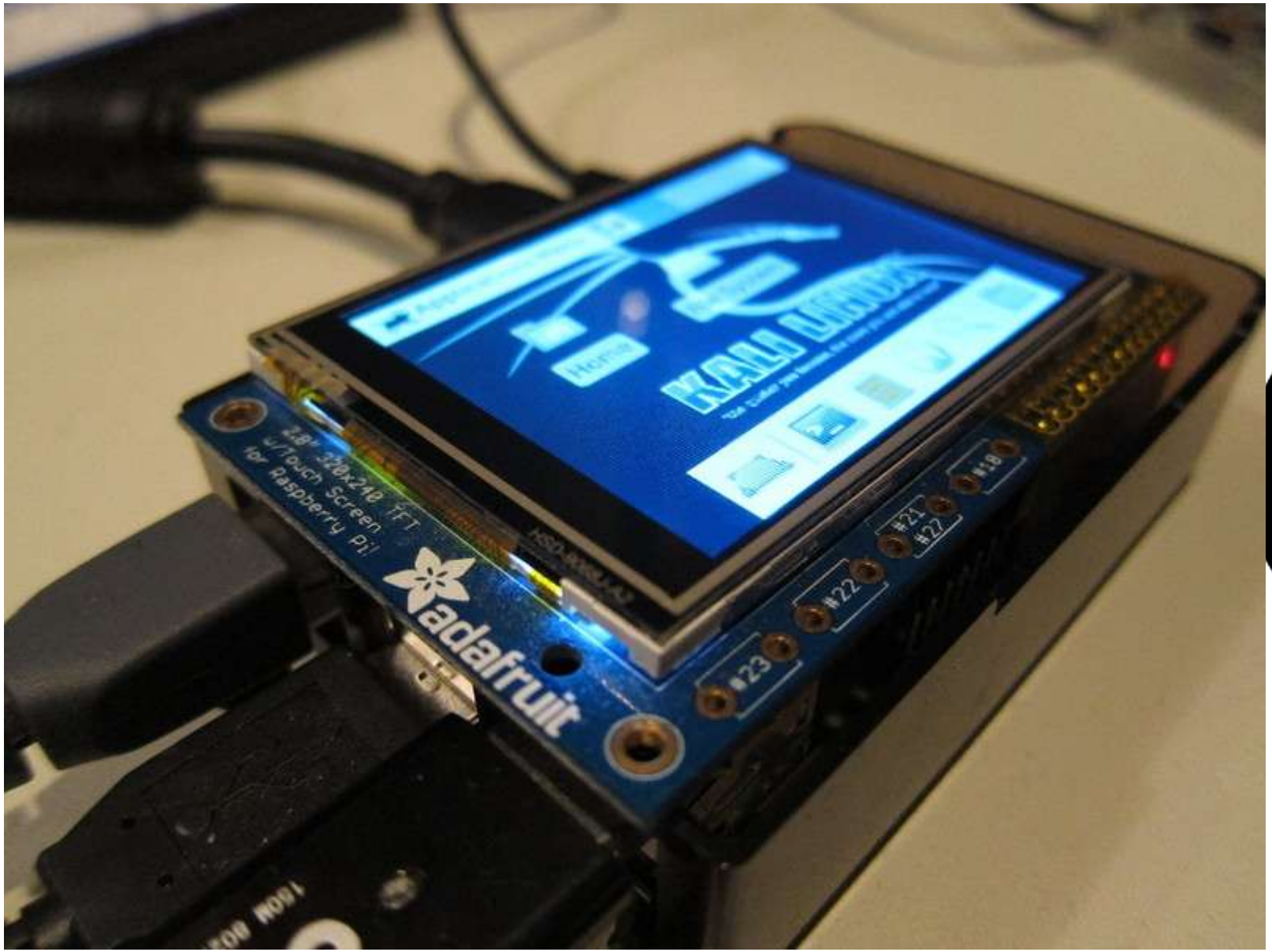


SUPER
MARIOWORLD

Raspberry Pi

# Raspberry Pi



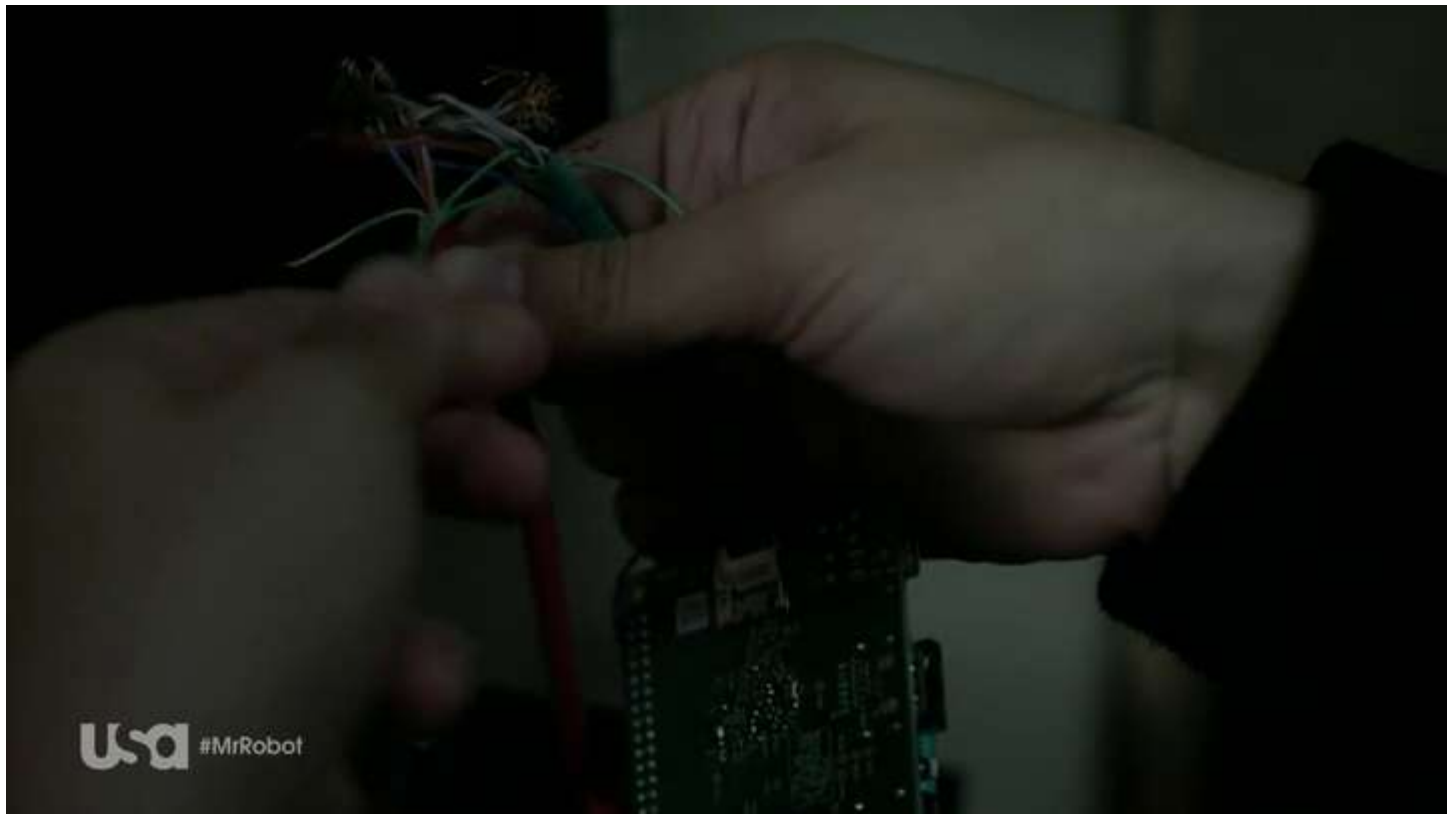
# Raspberry Pi

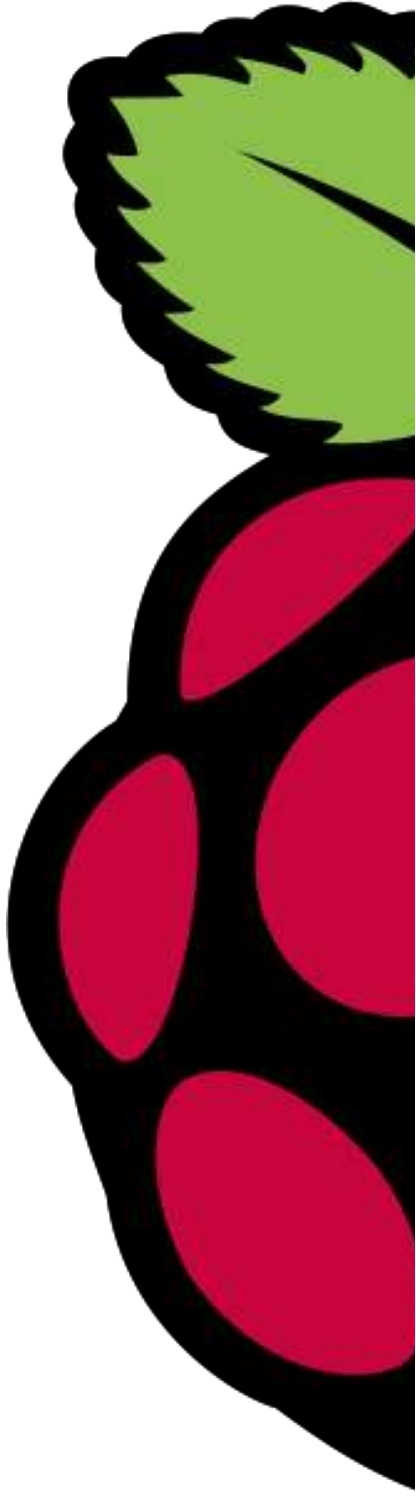
THE BLACK VORTEX
2580
HIGH SCORE
2580

Raspberry Pi

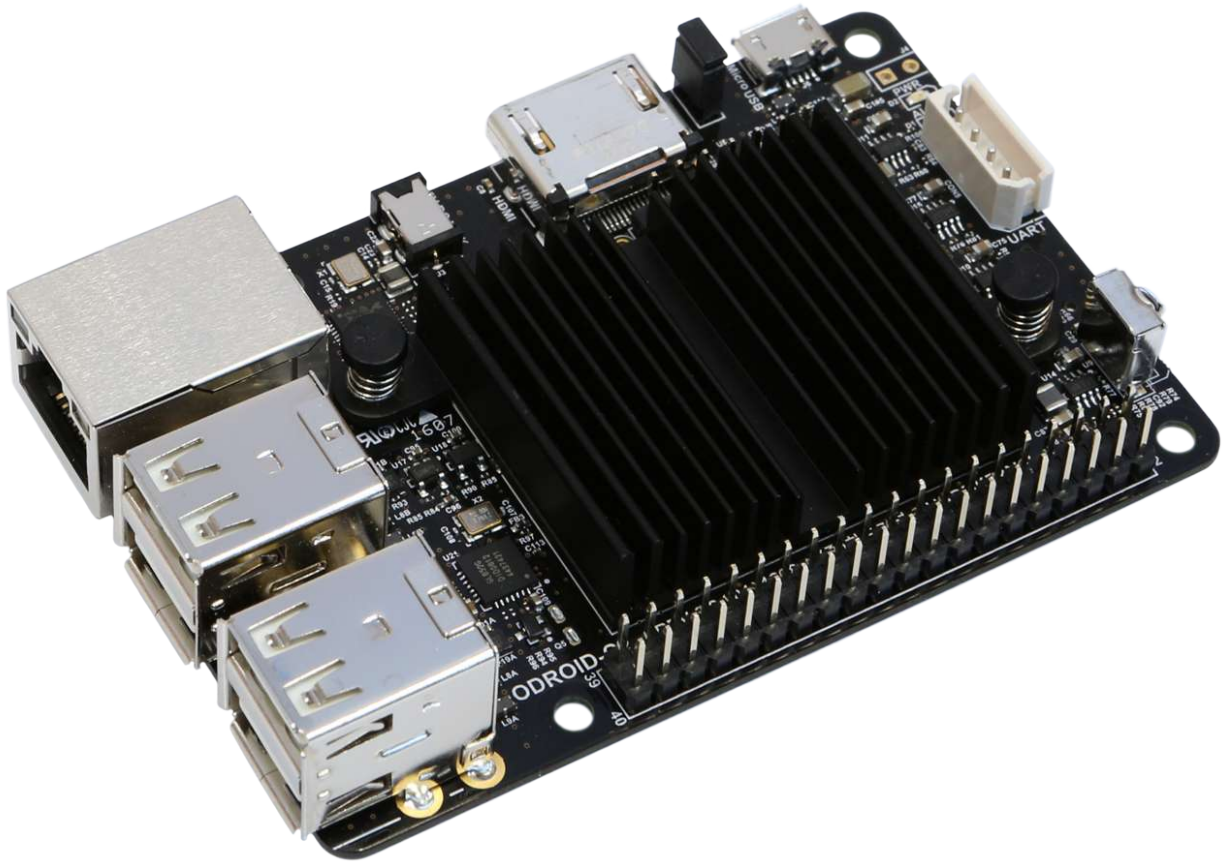
WE ARE MALICIOUS AND HOSTILE. WE ARE RELENTLESS.
WE DO NOT COMPROMISE. WE DO NOT NEGOTIATE.

# Raspberry Pi



# Raspberry Pi




**ODROID-C2**
ARMv8 - 1.5Ghz quad core CPUs (64 bits)
2Gb DDR3 SDRAM
$46.00

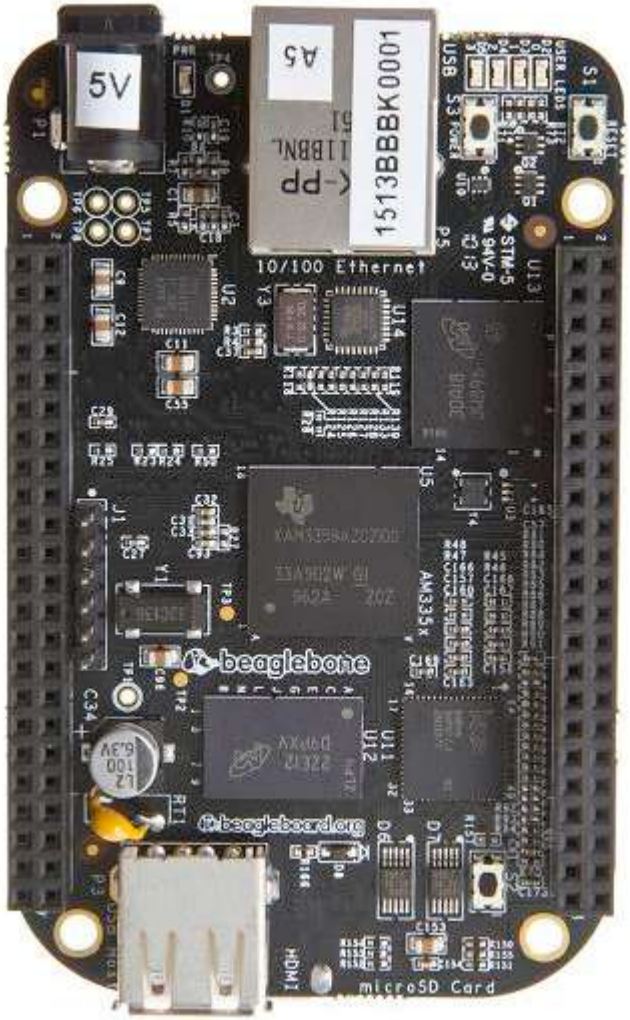
# Raspberry Pi

**ASUS Tinker Board**
1.8Ghz Cortex A-17 Processor
GPU quad-core ARM 600 Mhz
2 GB LPDDR3 RAM
$60.0

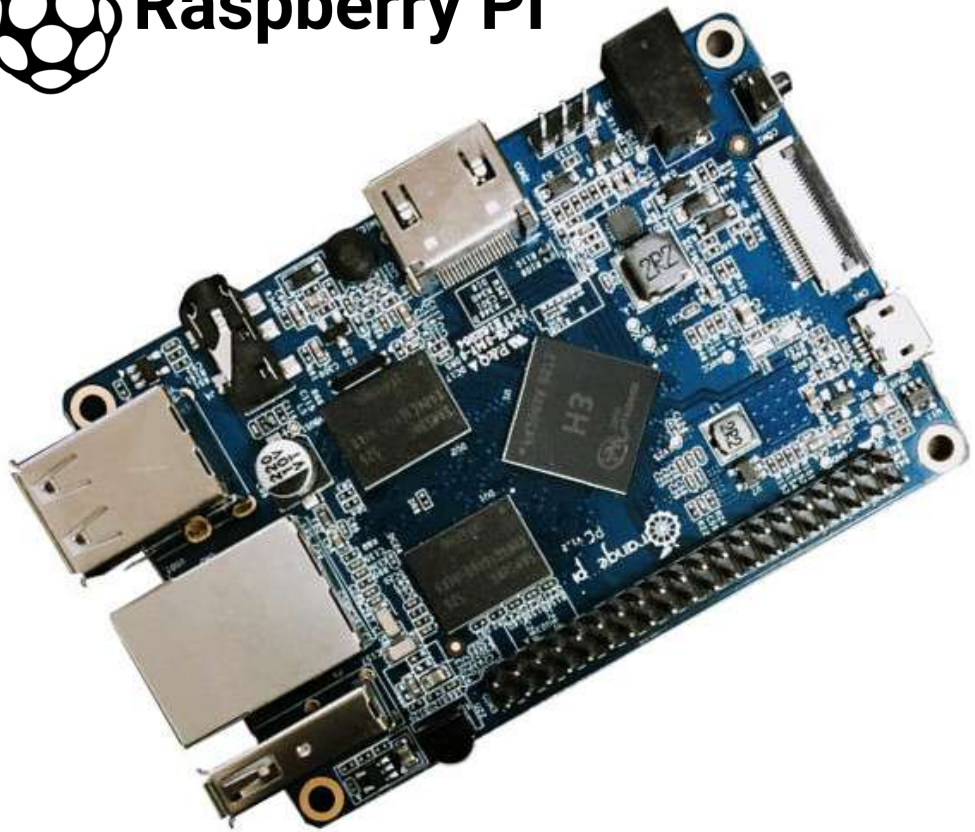
# Raspberry Pi

**BeagleBone Black**
1GHz ARM Cortex-A8 processor
512MB DDR3 RAM
4GB on-board flash storage

$40.0-45.0

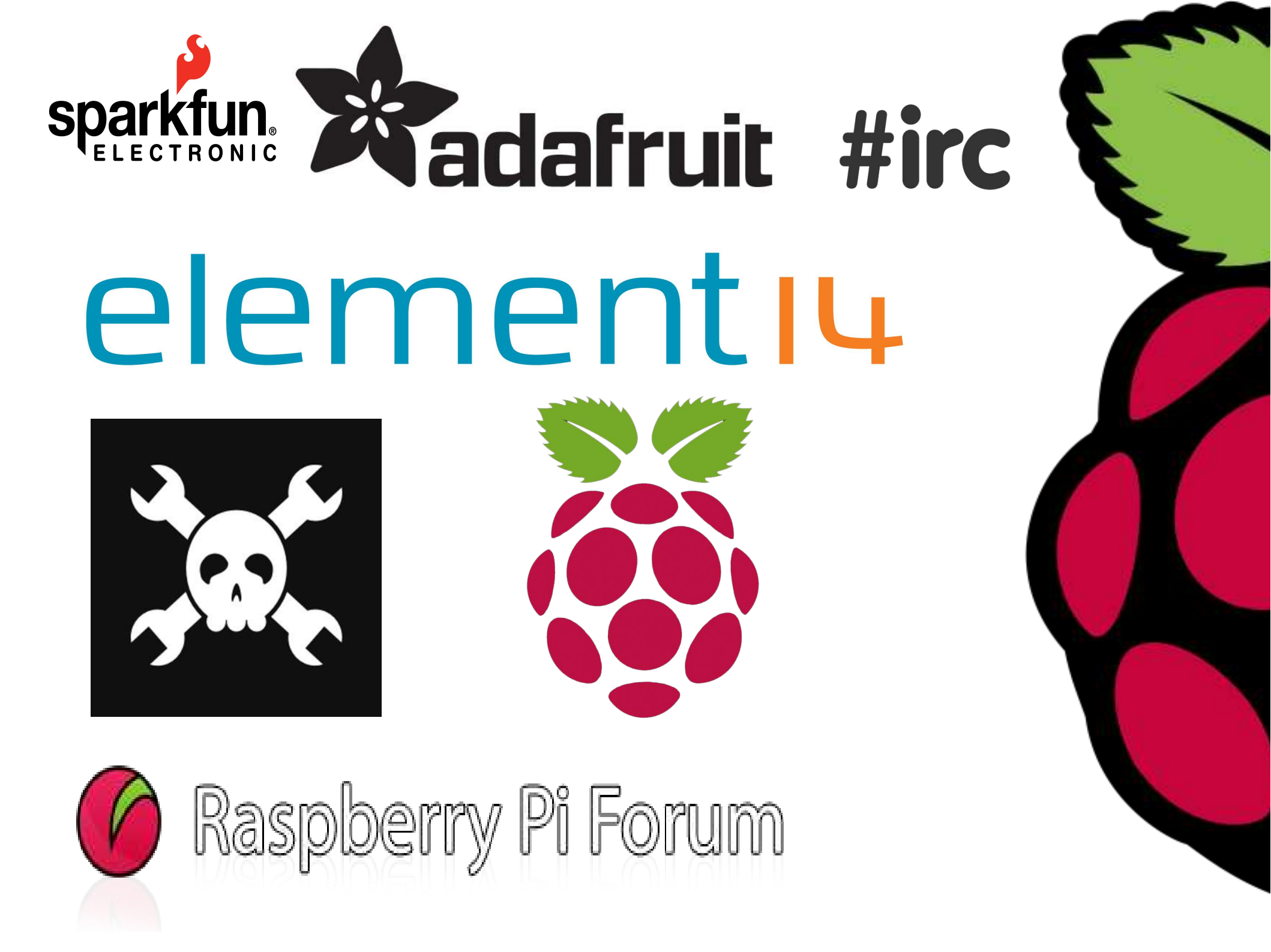
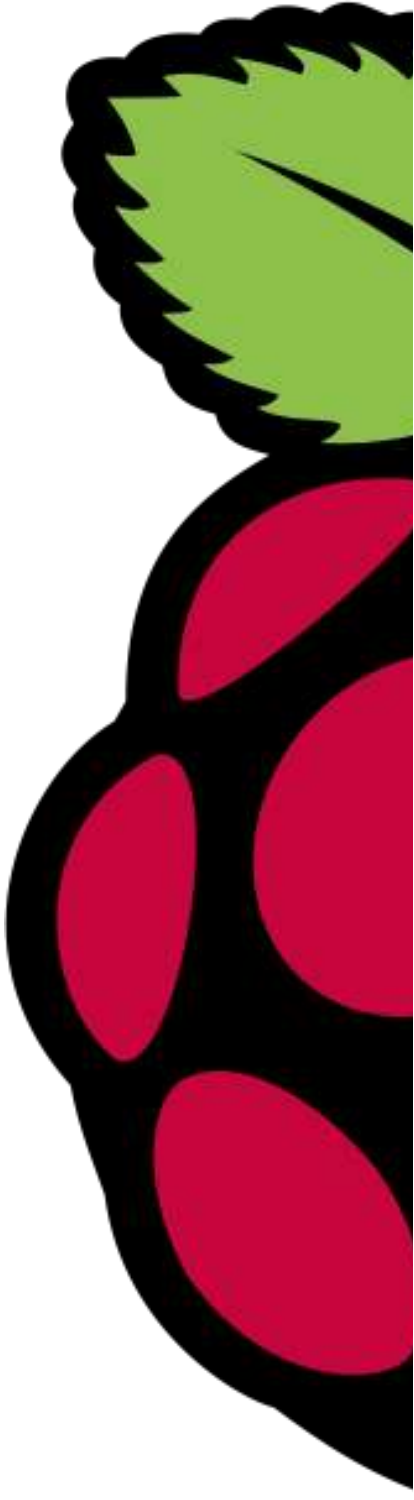


# Raspberry Pi




**Best seller Naranja pi pc h3 apoyo el lubuntu linux y android mini PC Más Allá de Frambuesa Pi 2 Comercio Al Por Mayor es disponible**

Quad-core Cortex-A7 1.6GHz
1 GB DDR3 RAM
14.01€


sparkfun
ELECTRONIC
adafruit
#irc
element14
Raspberry Pi Forum

Raspberry Pi