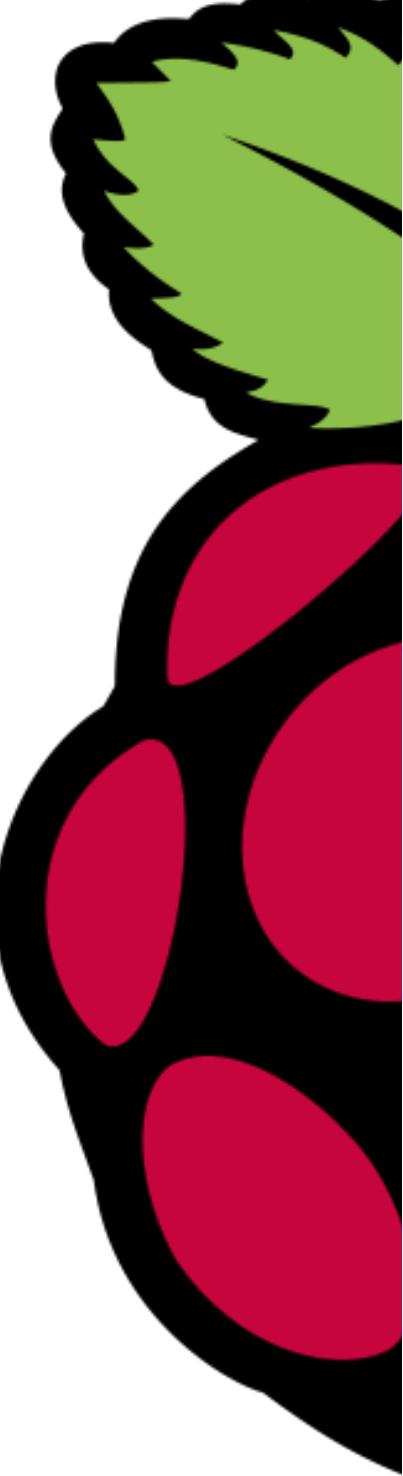
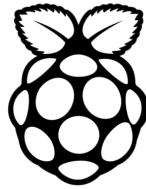


Raspberry Pi

# Hackea tu casa con Raspberry Pi

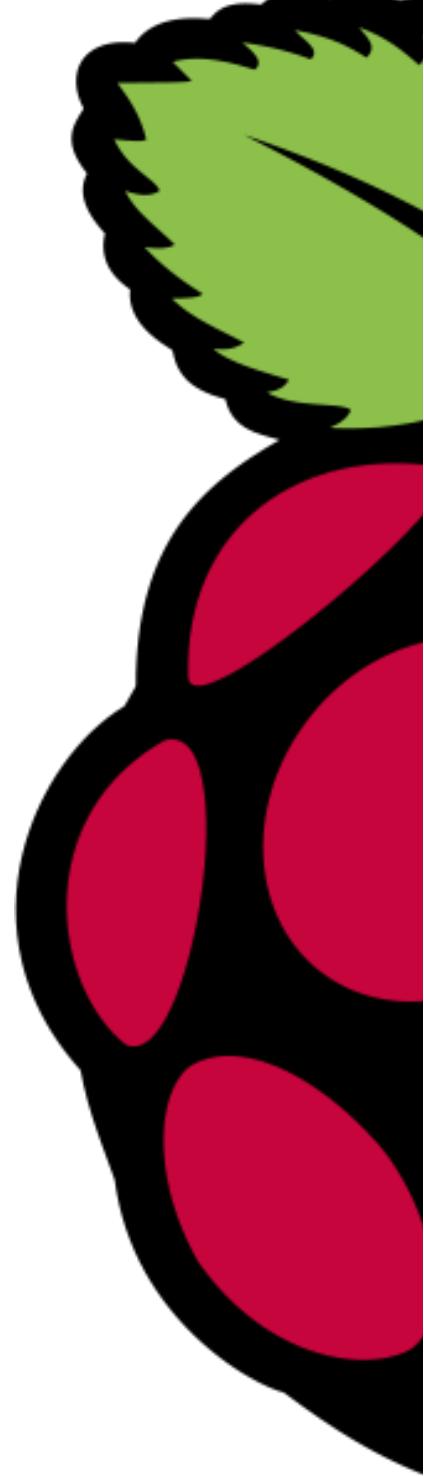
Por Fran Acién

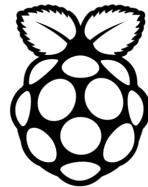




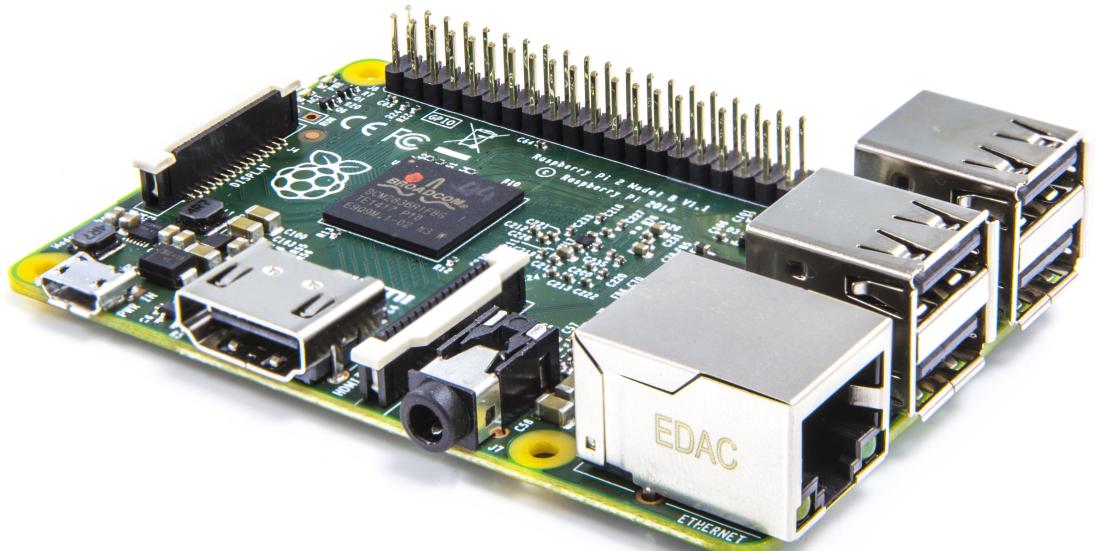
# Raspberry Pi

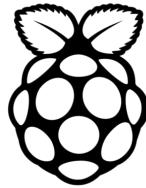
## Presentación



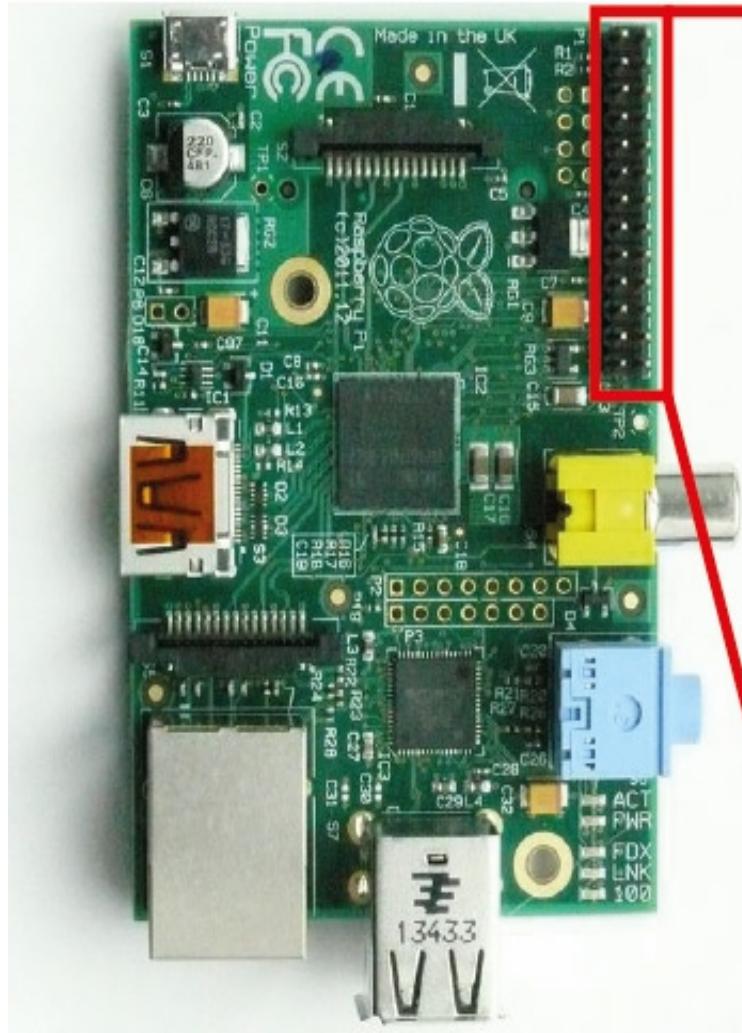


# Raspberry Pi



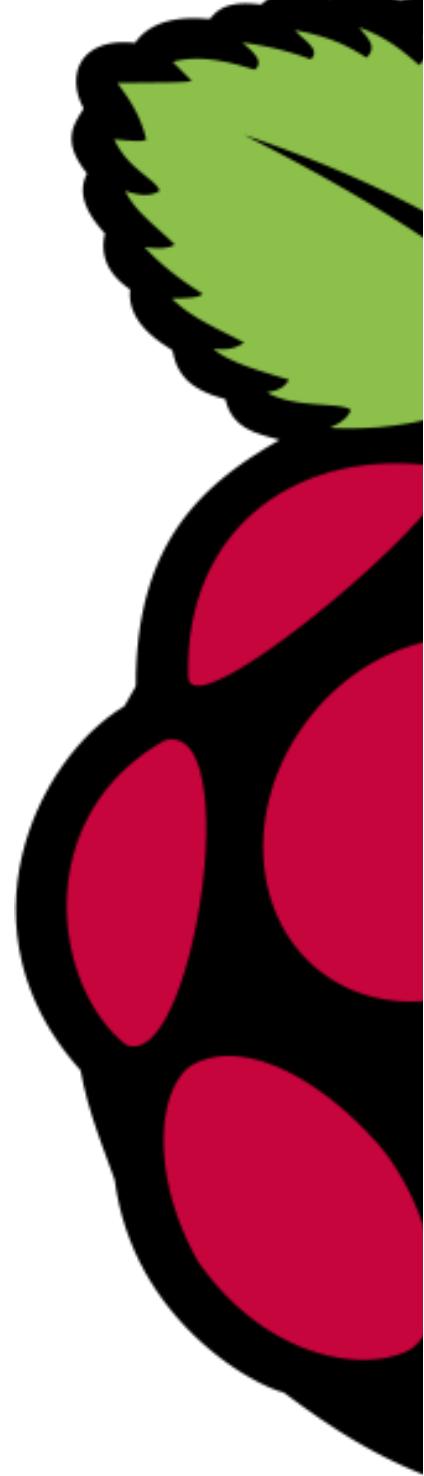


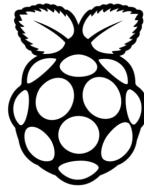
# Raspberry Pi



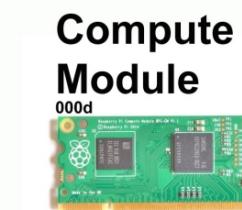
+ 3,3 V	1	2	+ 5 V
GPIO 2	3	4	+ 5 V
GPIO 3	5	6	GND
GPIO 4	7	8	GPIO 14
GND	9	10	GPIO 15
GPIO 17	11	12	GPIO 18
GPIO 27	13	14	GND
GPIO 22	15	16	GPIO 23
+ 3,3 V	17	18	GPIO 24
GPIO 10	19	20	GND
GPIO 9	21	22	GPIO 25
GPIO 11	23	24	GPIO 8
GND	25	26	GPIO 7

Revision 2.0



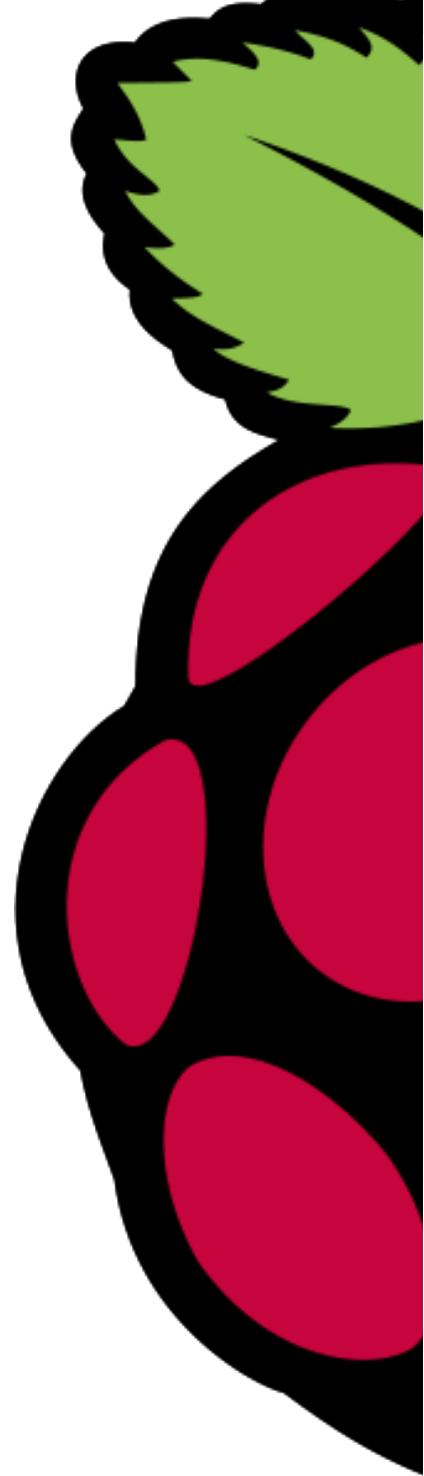


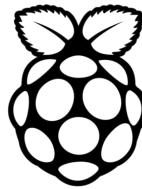
# Raspberry Pi



**Raspberry Pi® family**  
Feb 29th 2016

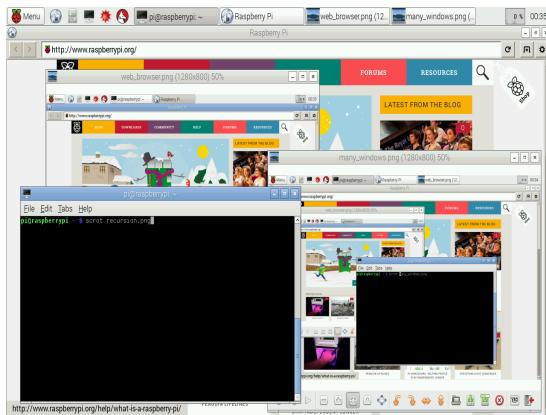
**RasPi.TV**





# Raspberry Pi

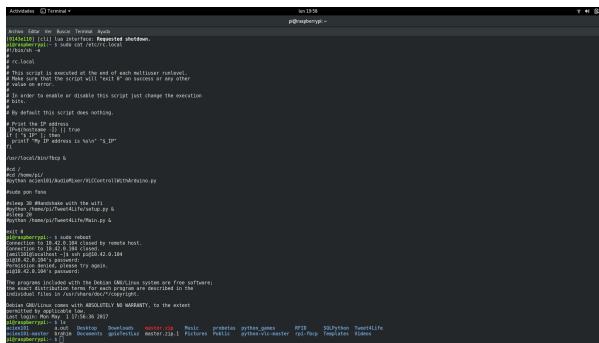
## Raspbian



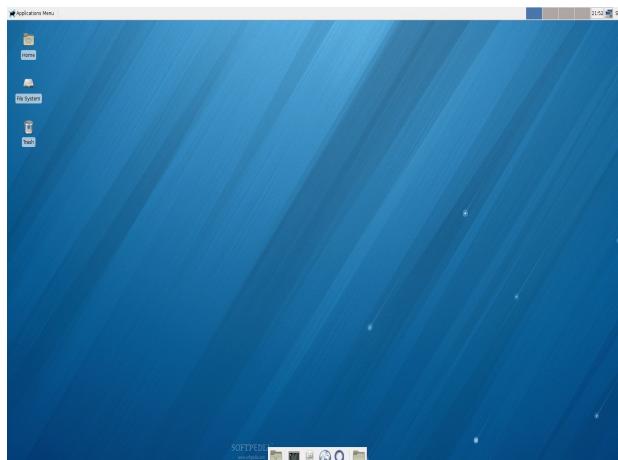
## Ubuntu mate

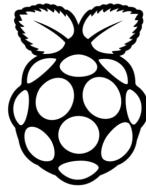


## Raspbian lite



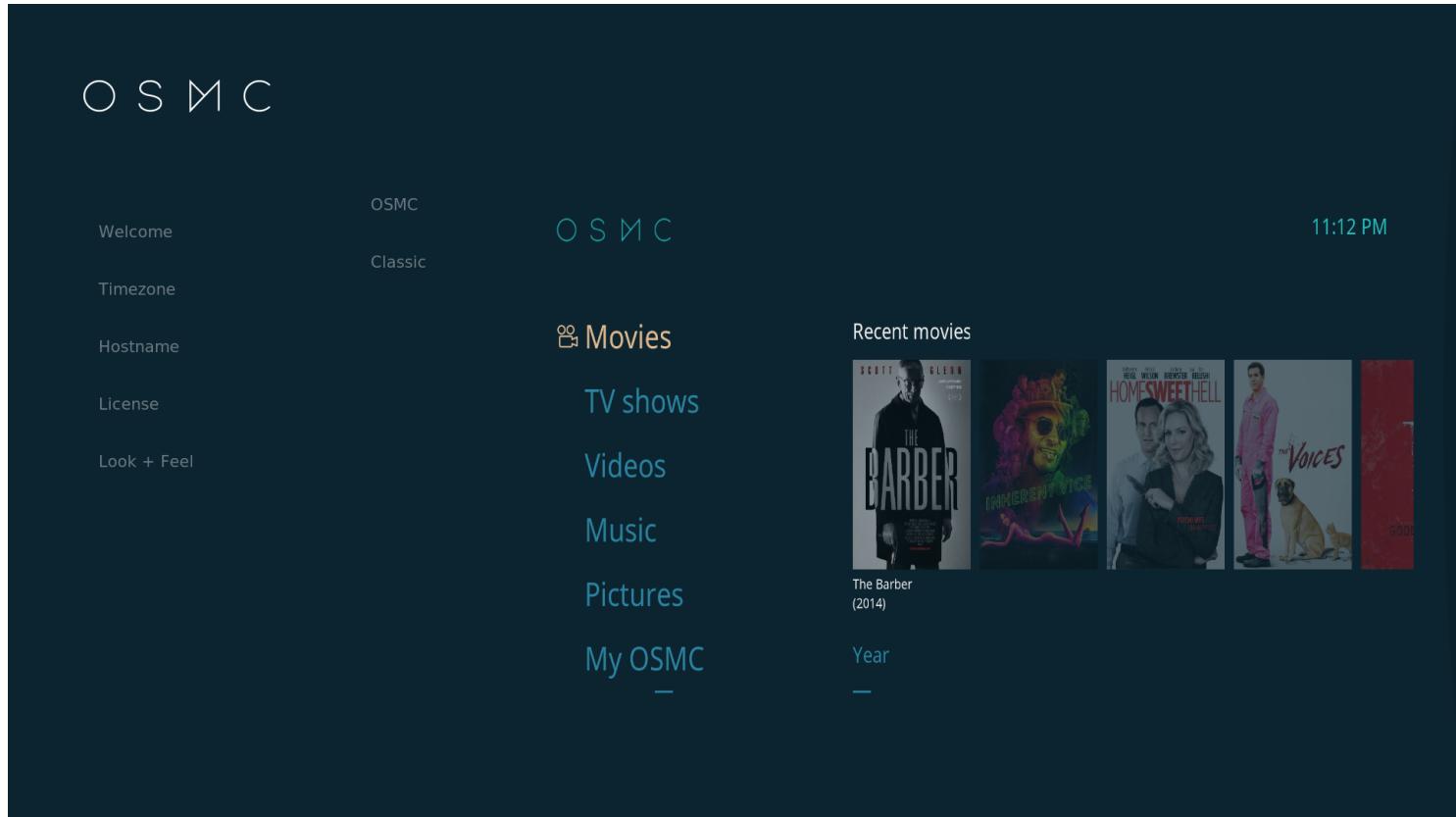
## Arch Linux





# Raspberry Pi

## OSMC



The screenshot shows the OSMC (Open Source Media Center) interface. At the top left, there's a navigation menu with links: Welcome, Timezone, Hostname, License, and Look + Feel. In the center, the OSMC logo is displayed above a main menu with categories: Movies, TV shows, Videos, Music, Pictures, and My OSMC. On the right side, a large section titled "Recent movies" displays five movie posters: "The Barber" (2014), "Inherent Vice", "Home Sweet Hell", "The Voices", and "Good". The time "11:12 PM" is shown in the top right corner.

OSMC

Welcome

Timezone

Hostname

License

Look + Feel

OSMC

Classic

OSMC

11:12 PM

Movies

TV shows

Videos

Music

Pictures

My OSMC

Recent movies

The Barber  
(2014)

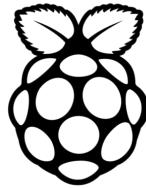
Inherent Vice

Home Sweet Hell

The Voices

Good

Year



# Raspberry Pi

## KODI



A screenshot of the Kodi media center interface. The top bar features the Kodi logo and the text "THE FUTURE OF TELEVISION". On the right, it shows the time "6:40 PM" and date "Wed, Apr 8, 2015". A large watermark for "TV ADDONS" is visible in the upper right corner. Below the top bar, there are four main categories: PICTURES,VIDEOS, MOVIES, and MUSIC. Under each category, there are sub-options: Files, Library, and Add-ons. Below these are five add-on icons: 1Channel, Genesis, Project Free TV, Icefilms, and Phoenix. At the bottom left are star and power icons. A footer bar at the bottom contains the text "TV ADDONS: Fourteen Official Kodi Addons Worth Mentioning - Watch" followed by a feed icon.

KODI

THE FUTURE OF TELEVISION

6:40 PM  
Wed, Apr 8, 2015

TV ADDONS  
POWERED BY KODI

CUSTOM TVMC EDITION

f TV ADDONS t TV ADDONS

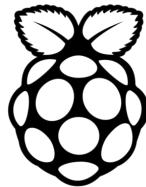
WWW.TVADDONS.AG

PICTURES    **VIDEOS**    MOVIES    MUSIC

Files    Library    Add-ons

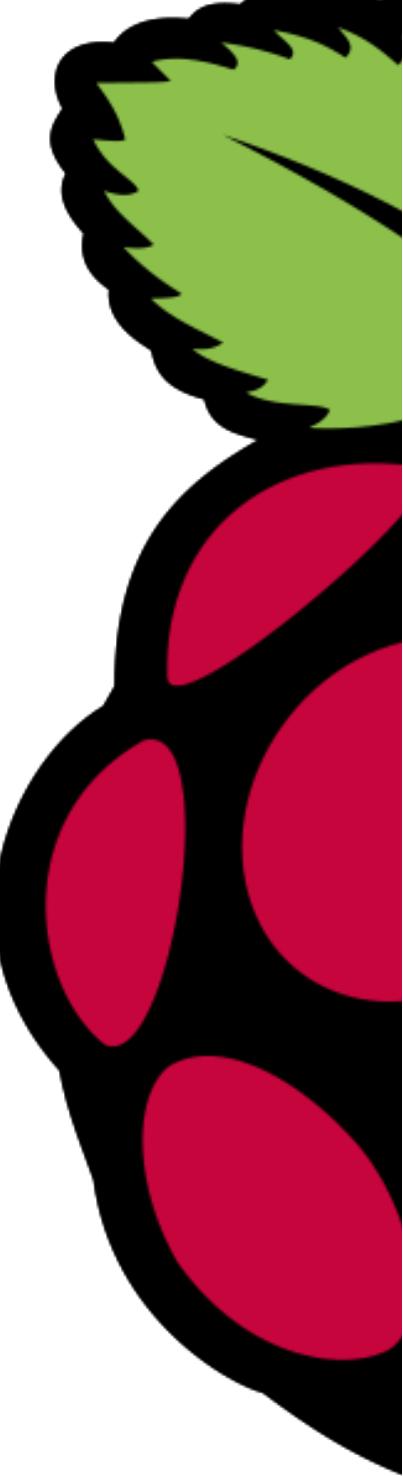
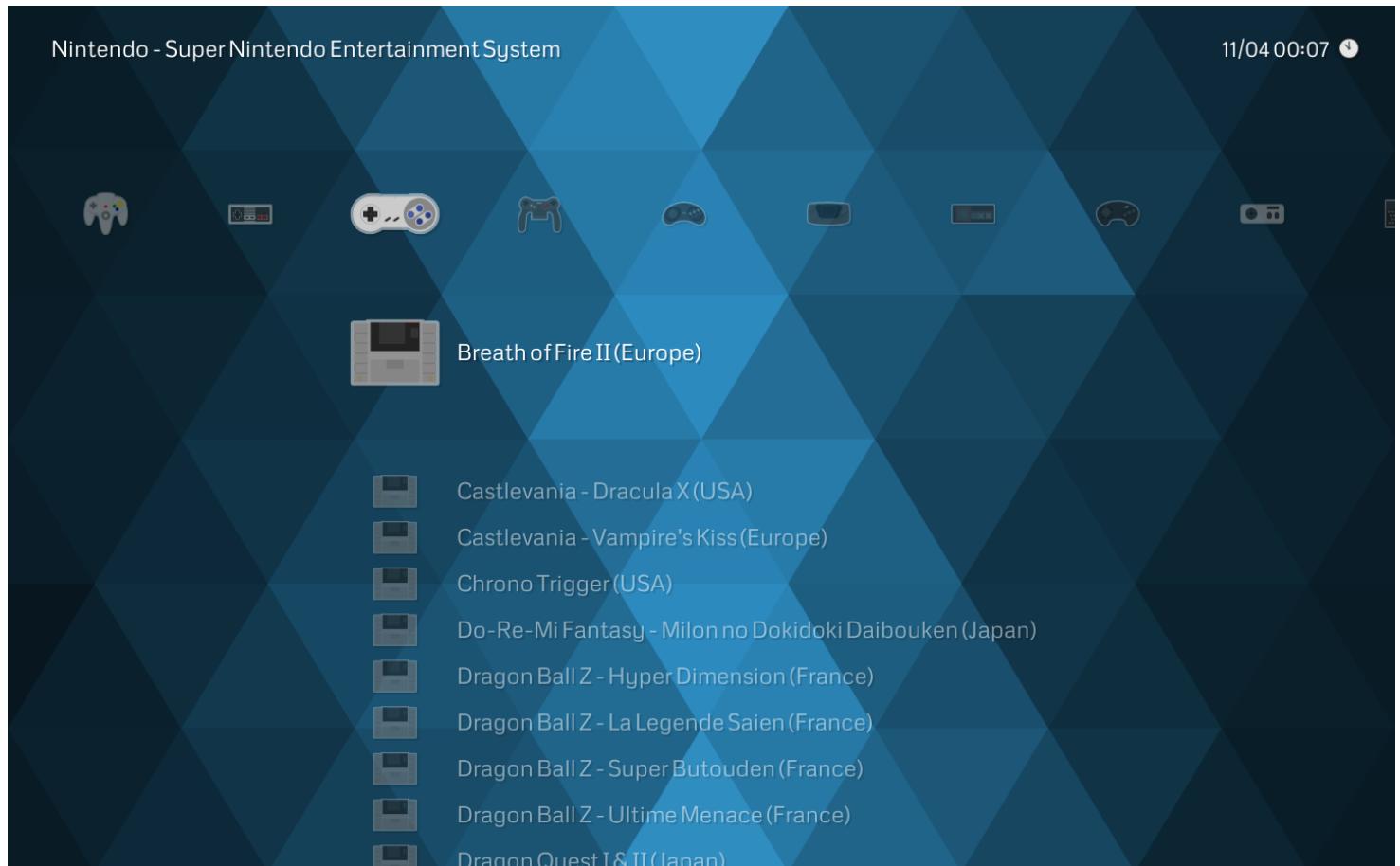
1Channel    Genesis    Project Free TV    Icefilms    Phoenix

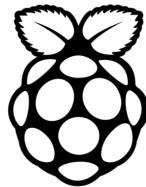
TV ADDONS: Fourteen Official Kodi Addons Worth Mentioning - Watch



# Raspberry Pi

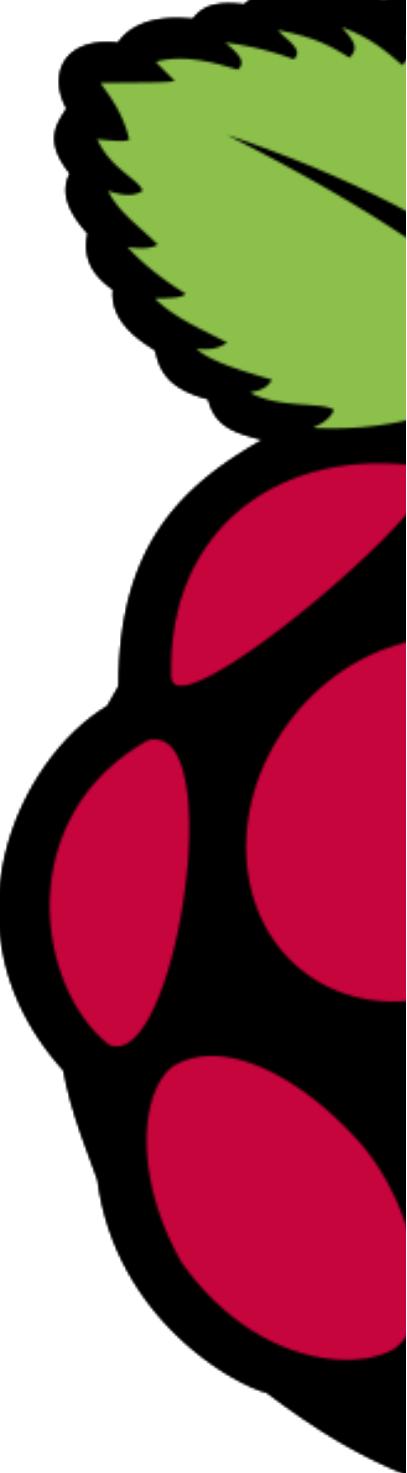
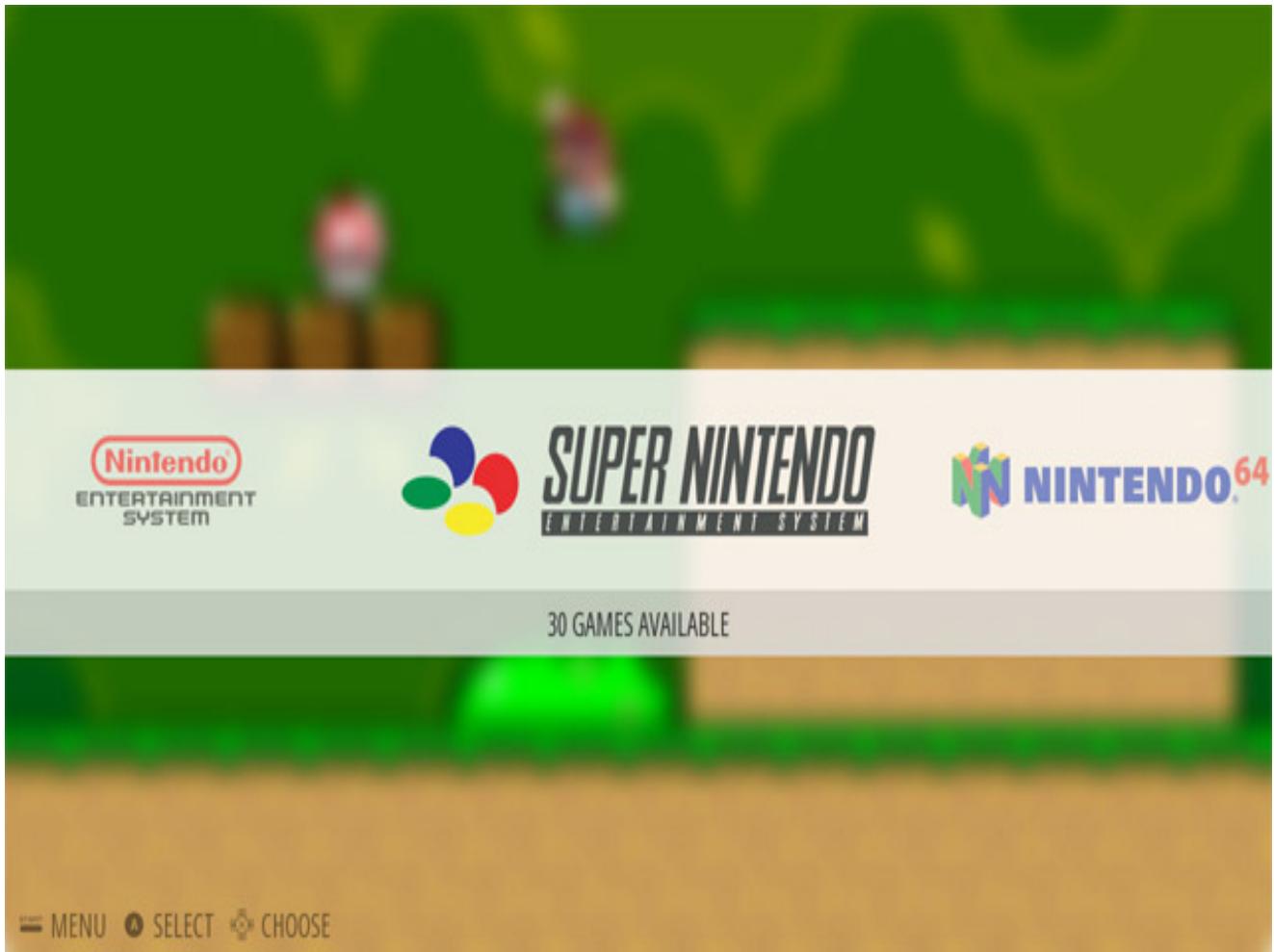
## Lakka

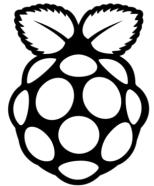




# Raspberry Pi

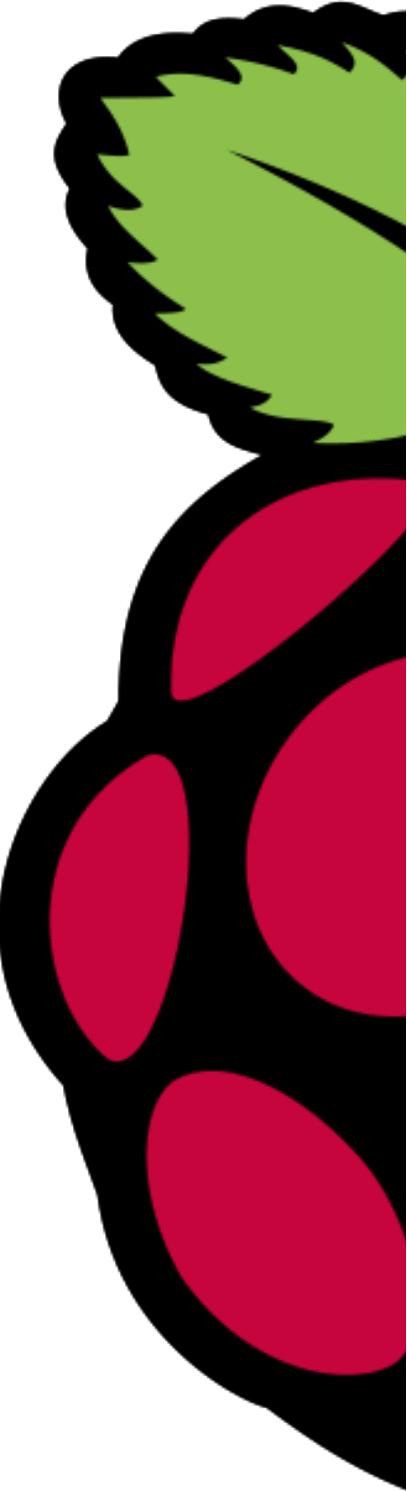
## Recalbox/Retropie

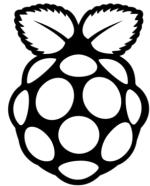




Raspberry Pi

Y... ¿Qué se puede hacer?

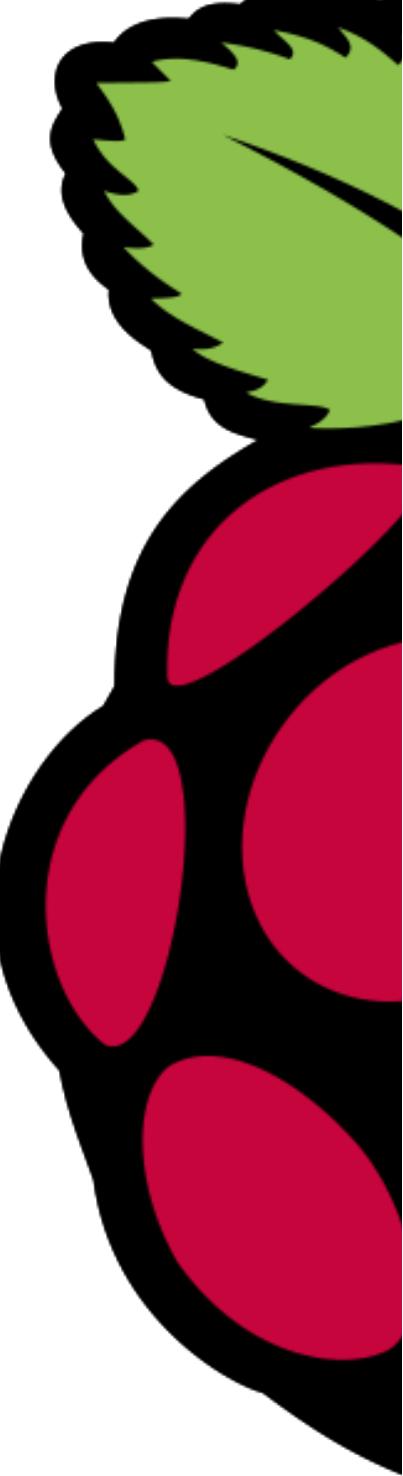


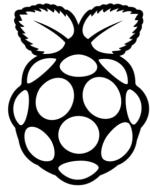


Raspberry Pi

# Eso depende de tí...

pero estos son algunos ejemplos

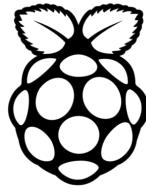




Raspberry Pi

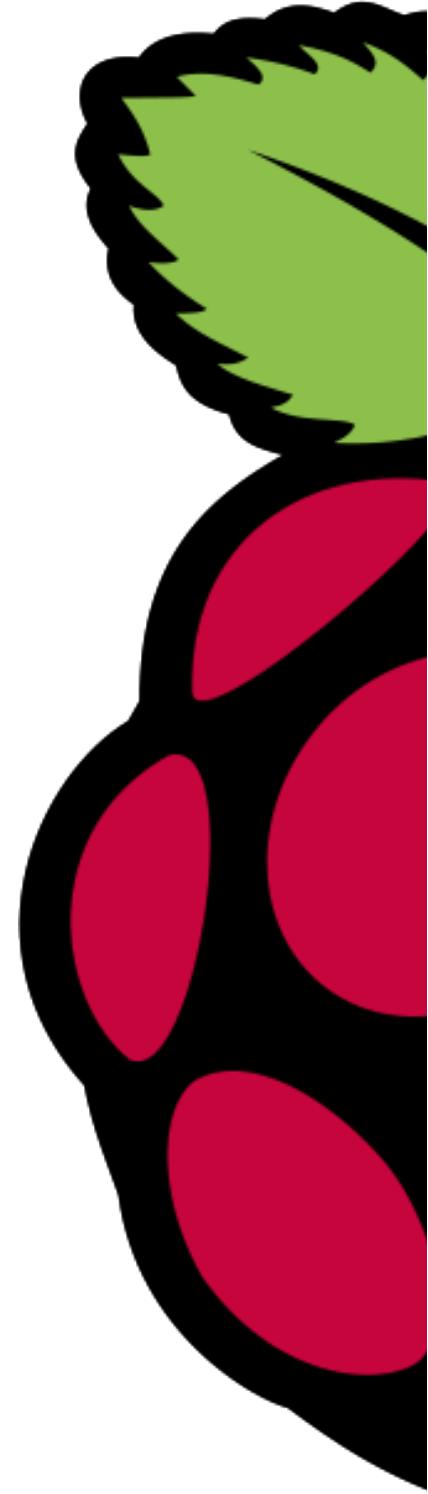
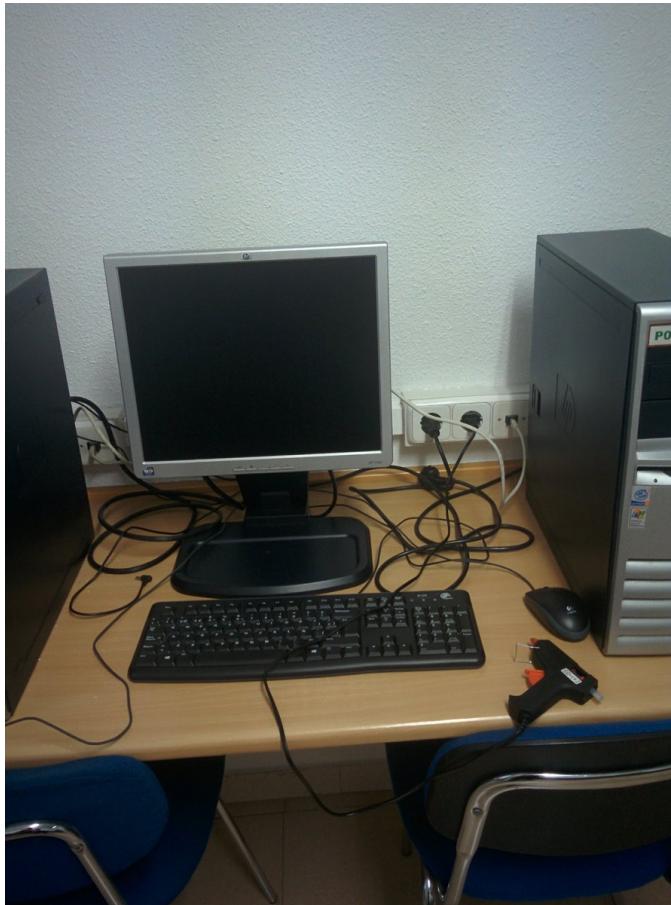
**NFC's + Arduino + Raspberry Pi**

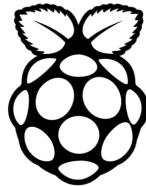
//video



# Raspberry Pi

En mi colegio mayor





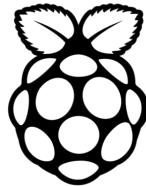
# Raspberry Pi

**Sitio:** Sala de informática de mi colegio mayor

**Servicios que tiene:**

- \* Samba
- \* FTP
- \* DLNA
- \* Bot de twitter
- \* Transmission
- \* 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?

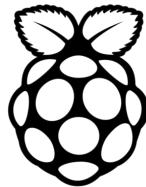
Es un protocolo para compartir archivos entre ordenadores de la misma red. Hay gran cantidad de exploradores de ficheros compatibles con Samba, en Android, IOS, Windows, Linux, etc.

### ¿Cómo se instala?

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

#### [Torrent]

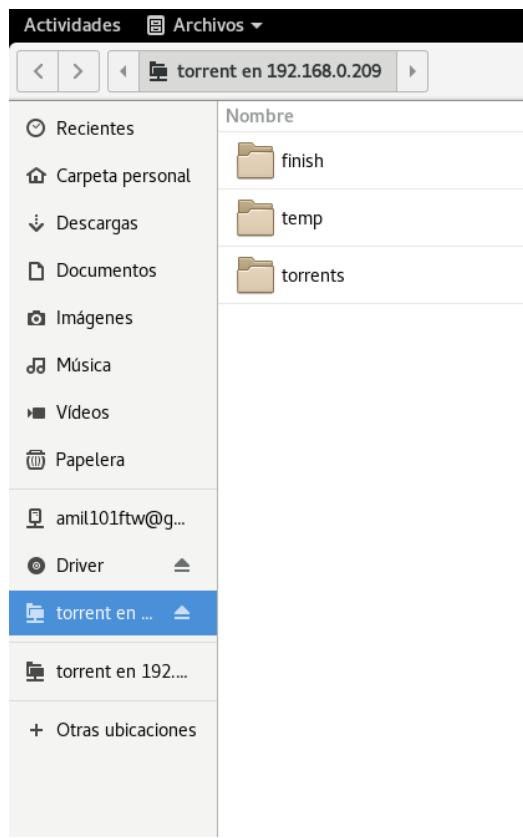
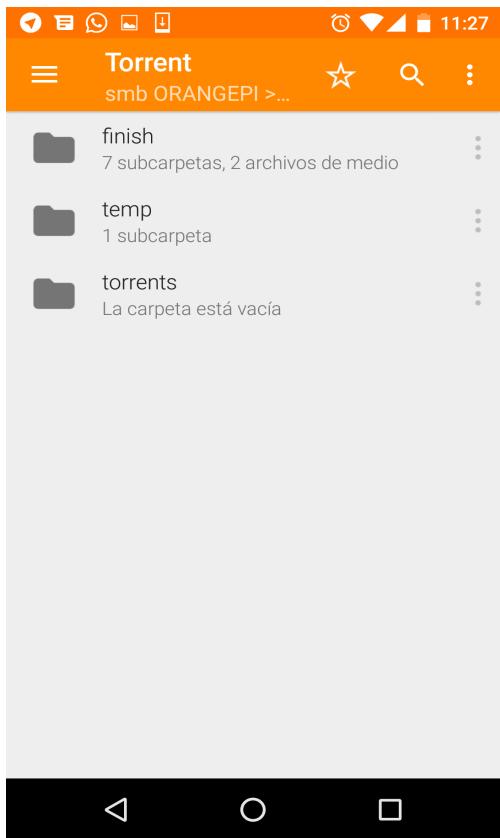
```
path = /root/torrent  
comment = Directory for torrents  
writable = yes  
browseable = yes  
guest ok = yes  
create mask = 0777  
directory mask = 0777
```

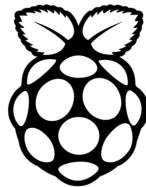


# Raspberry Pi

## Samba

### Resultado:

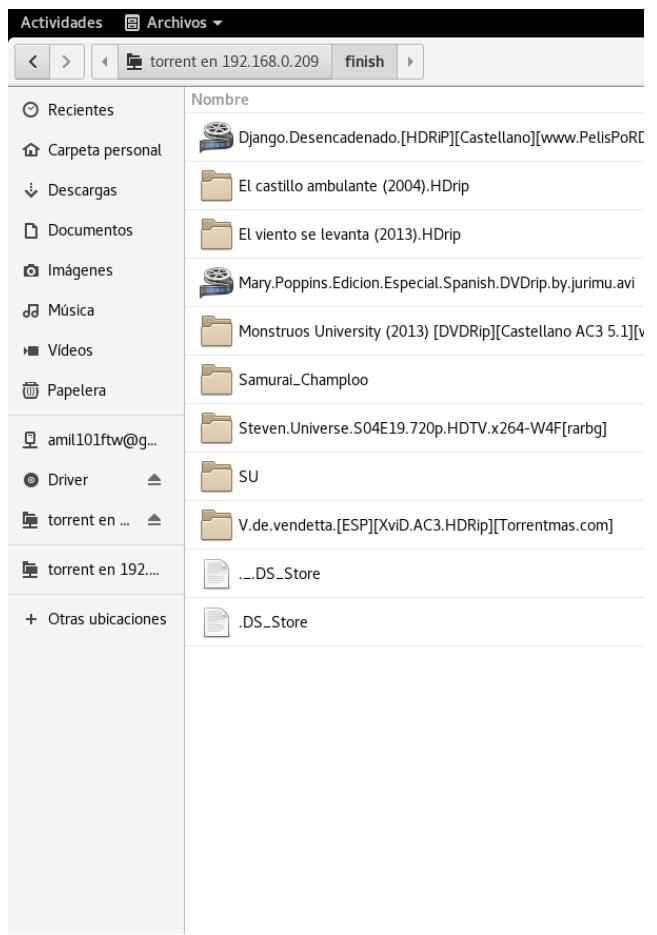
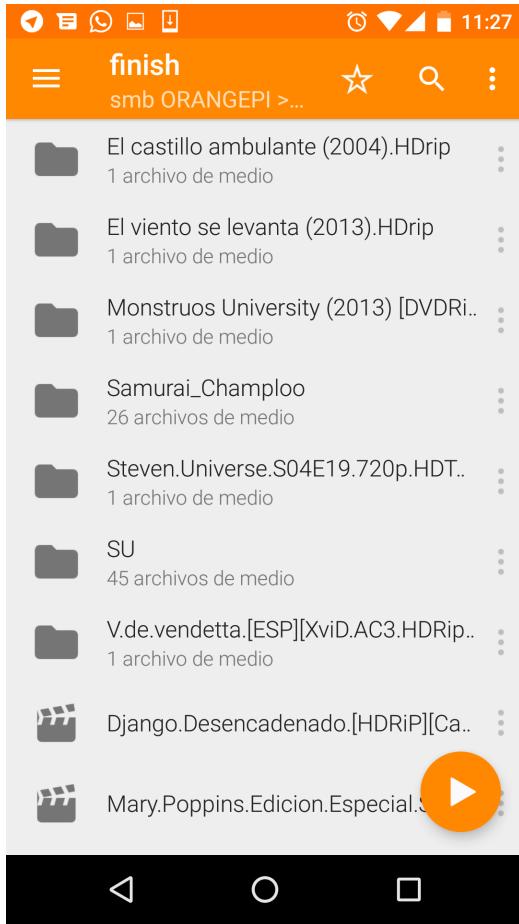


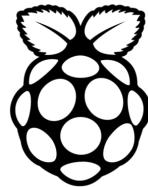


# Raspberry Pi

## Samba

### Resultado:

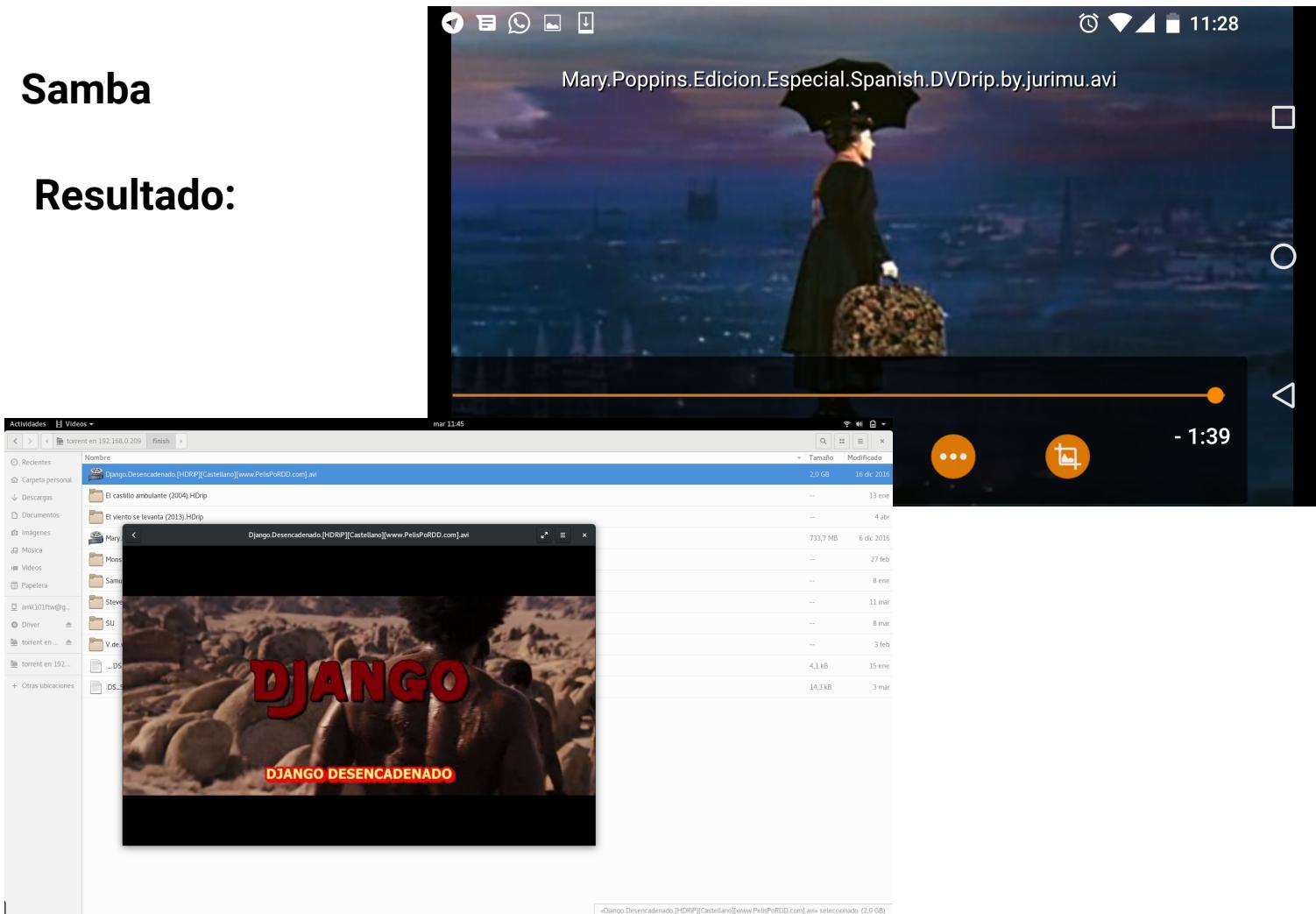


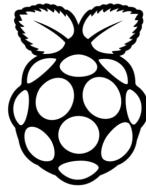


# Raspberry Pi

Samba

Resultado:





# Raspberry Pi

## DLNA/UPnP

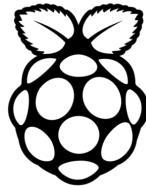
¿Qué es?

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?

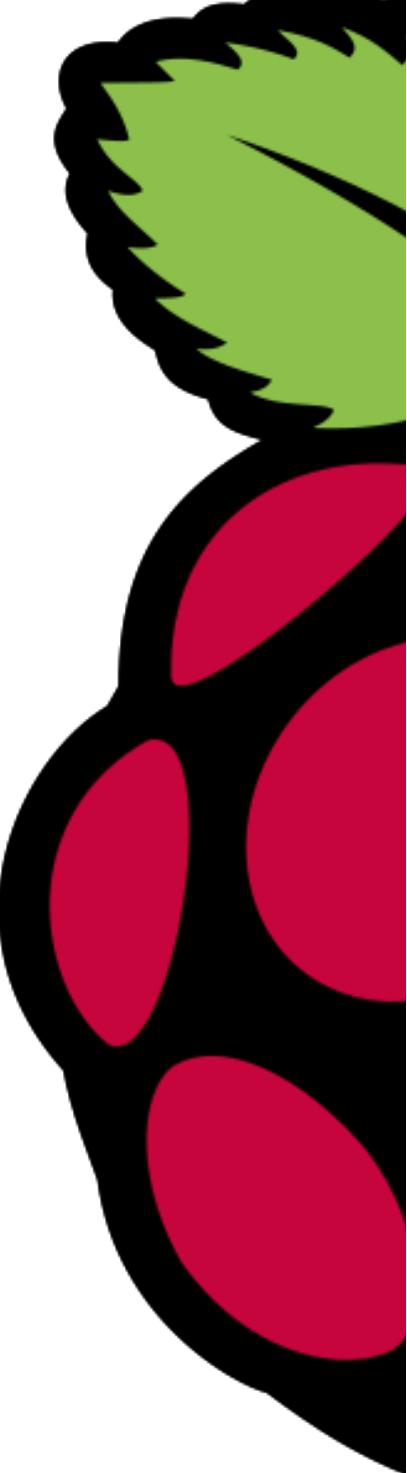
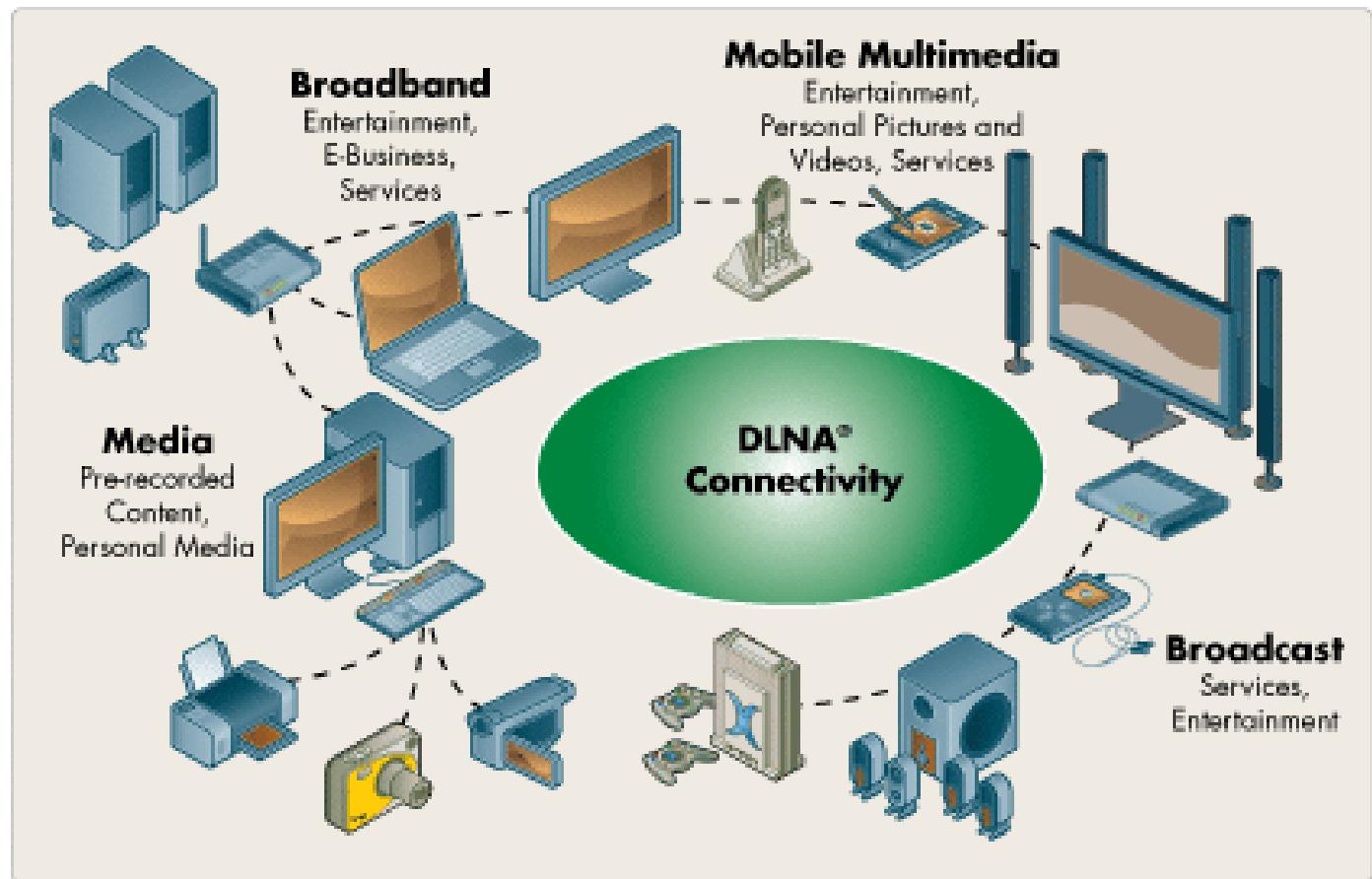
```
apt-get install minidlna  
sudo nano/etc/minidlna.conf
```

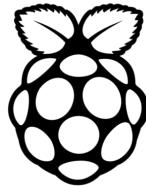
```
media_dir=A,/mnt/ext/Music  
media_dir=P,/mnt/ext/Pictures  
media_dir=V,/mnt/ext/Videos  
friendly_name=Raspberry Pi  
inotify=yes
```



# Raspberry Pi

## DLNA/UPnP





# Raspberry Pi

## Transmission y Flexget

¿Qué es?

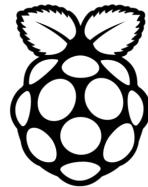
Transmission es un cliente P2P.

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?

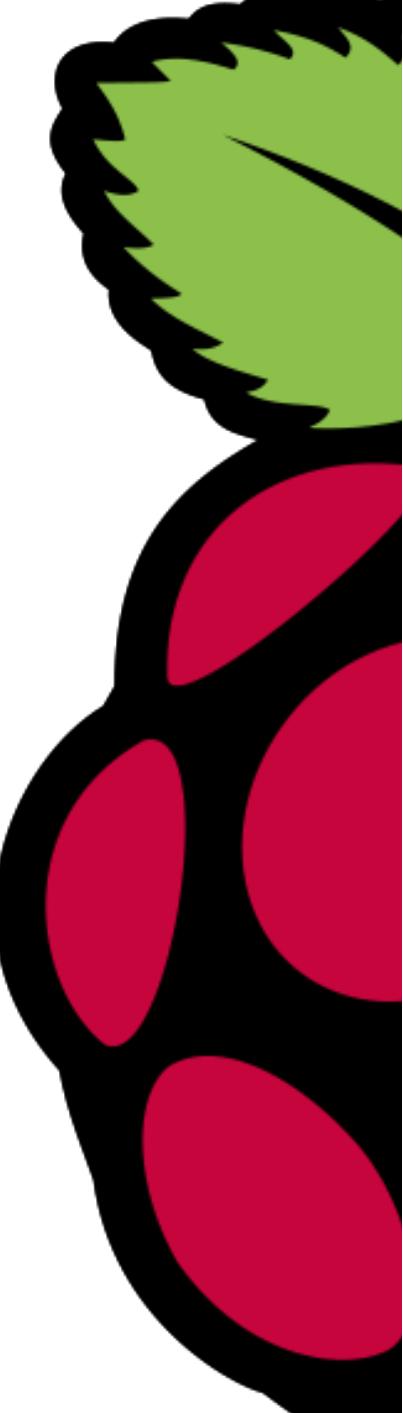
```
sudo apt-get install transmission-daemon  
sudo nano /etc/transmission-daemon/settings.json
```

```
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

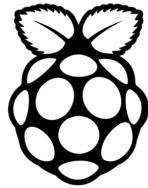
## Transmission y Flexget



A screenshot of a Linux desktop environment showing a web browser window for Transmission. The browser's address bar shows the URL `192.168.0.209:9091/transmission/web/`. The Transmission interface displays several torrent download tasks:

- Django.Desencadenado.[HDRip][Castellano][www.PelisPoRDD.com].avi: Seeding to 0 of 0 peers - &uarr; 0 kB/s, 2.03 GB uploaded 7.90 GB (Ratio 3.85)
- El castillo ambulante (2004).HDrip: Seeding to 0 of 0 peers - &uarr; 0 kB/s, 1.65 GB uploaded 16.7 GB (Ratio 10.0)
- El viento se levanta (2013).HDrip: Seeding to 0 of 0 peers - &uarr; 0 kB/s, 1.32 GB uploaded 4.25 GB (Ratio 3.2)
- Mary.Poppins.Edicion.Especial.Spanish.DVDrip.by.jurimu.avi: Seeding to 0 of 0 peers - &uarr; 0 kB/s, 733.6 MB uploaded 4.62 GB (Ratio 6.55)
- Monstros University (2013) [DVDRip][Castellano AC3 5.1][www.lokotorrents.com]: Seeding to 0 of 0 peers - &uarr; 0 kB/s, 1.28 GB uploaded 2.00 GB (Ratio 1.55)
- Steven.Universe.S04E19.720p.HDTV.x264-W4F[rarbg]: Seeding to 0 of 0 peers - &uarr; 0 kB/s, 176.9 MB uploaded 961.9 MB (Ratio 4.95)
- V.de.vendetta.[ESP][XviD.AC3.HDRip][Torrentmas.com]: Seeding to 1 of 1 peers - &uarr; 1 kB/s, 1.52 GB uploaded 8.10 GB (Ratio 5.33)

The desktop taskbar at the bottom includes icons for terminal, file manager, and system status.

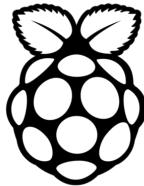


# Raspberry Pi

## Transmission y Flexget

### Flexget:

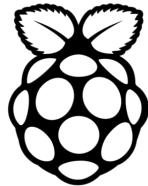
```
tasks:  
  test task:  
    rss: http://showrss.info/show/589.rss  
    all_series: yes  
    transmission:  
      host: localhost  
      port: 9091  
      username: "  
      password: "  
      ratio: -1  
      main_file_only: yes  
      path: /root/torrent/finish  
      addpaused: no  
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



# Raspberry Pi

# Transmission y Flexget

## Flexget:



# Raspberry Pi

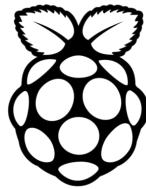
## VNC

### ¿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.

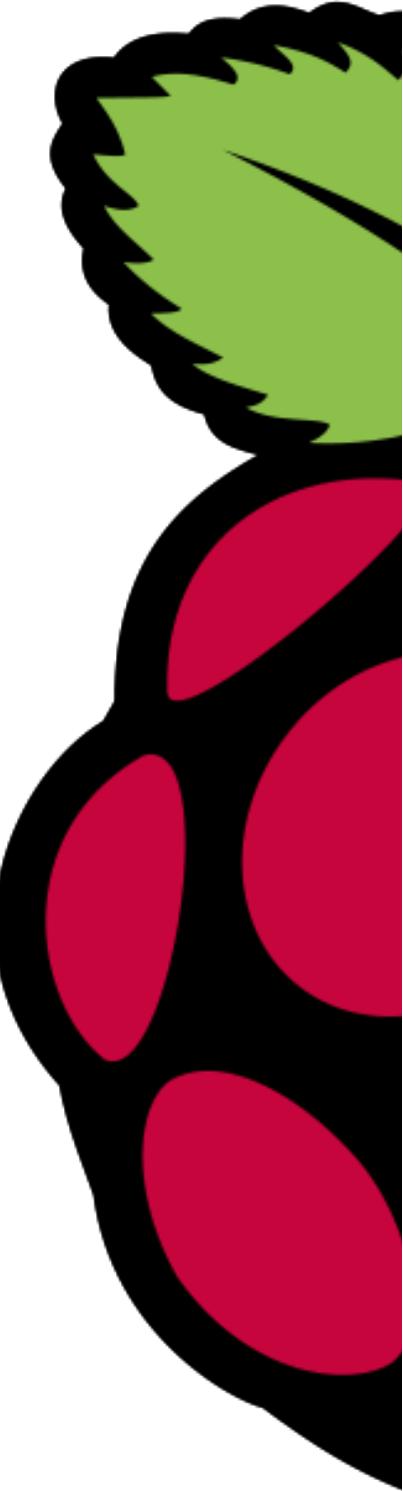
### ¿Cómo se instala?

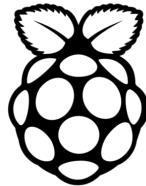
```
sudo apt-get install tightvncserver  
tightvncserver  
sudo reboot  
vncserver :0
```



# Raspberry Pi

## VNC





# Raspberry Pi

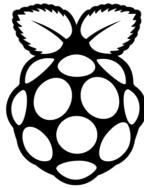
## IDE en la nube, Cloud9

### ¿Qué es?

Un IDE en la nube es cómo el típico IDE que utilizamos para programar pero que accedemos a él 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

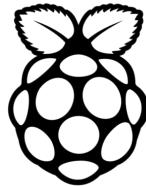
## Hacemos ...

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

y boalá

The screenshot shows the Cloud9 IDE interface with three main panes:

- Top Bar:** Includes tabs for "Cloud9", "File", "Edit", "Find", "View", "Goto", "Run", "Tools", "Window", "Help", "Preview", and "Run". It also features a "Share" button, user profile "Ruben Daniels", and a gear icon.
- Left Sidebar:** Labeled "Workspace" and "Navigate".
- Code Editors:**
  - Left Editor (edit\_session.js):** Displays code for an "EditSession" class. It includes methods like `getValue`, `toString`, and `getSelection`. A tooltip for the `getTokens` method is visible at the bottom.
  - Right Editor (hello.js):** Displays a simple Node.js script that creates an HTTP server to respond with "Hello World".
- Terminal:** Labeled "README.md" and "package.json". It contains the JSON configuration for the "ace" package, including dependencies like "asyncjs", "jsdom", and "rdrive".



# Raspberry Pi

## Bot de Twitter

¿Qué hace?

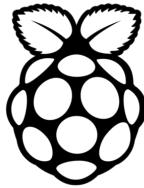
Me escribe un mensaje con la dirección IP de la placa para que sea mucho más sencillo saber donde está conectada.

```
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])
```

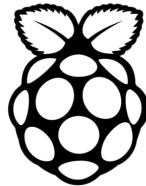


# Raspberry Pi

# Bot de Twitter

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

The screenshot shows a Twitter search results page for the query "addr:192.168.0.209". The top result is from the user Amil101BOT (@09619GP49), posted on 12 feb. The tweet content is "addr:192.168.0.209". Below this, there are nine more identical tweets from the same user, each with a timestamp of 12 h. The interface includes a sidebar with trending topics like "Fran Acién", "Tendencias: España", "#2deMayo", "#AcosoEscolar", "#FelizMartes", "#EchaleHuevosAlBullying", "#VotaMociónDeCensura", "Carta a Jordi Cruz", "DarkSiders 3", "Cabify", "Macedonia", and "Maragall". At the bottom, there are standard Twitter interaction buttons for smiley face, GIF, camera, and send.



# Raspberry Pi

## A2DP

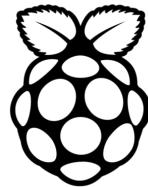
### ¿Qué es?

A2DP, Advanced Audio Distribution Profile, es un perfil de Bluetooth que nos permite compartir audio remotamente a través 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

Now Playing

Three Women

Jack White - Lazaretto

1:15 3:57

Now Playing

Playlists

- \* Spotify Starred Tracks
- mattheus
- muse
- daft punk live
- bach
- In Rainbows
- gorillaz
- Elbow Seldom Seen Kid Live
- Editors
- ont
- Coldplay
- Underground 80s
- Sonic Universe
- Dub Step Beyond
- Jack White - Lazaretto
- Chef'special - Passing Through
- Michael Jackson - XSCAPE
- Coldplay
- Bach, JS: Brandenburg Concertos
- Happy Camper — Happy Camper
- Editors - Tracks We Listen To On The Road by editorslabel
- Blaudzun

Search

Radio

Fullscreen

Settings

System

Playlists

- Alive: 2007 (Live)
- Daft Punk
- Robot Rock / Oh Yeah
- Touch It / Technologic
- Television Rules The Nation / Crescendolls
- Too Long / Steam Machine
- Around The World / Harder Better Faster Stronger
- Burnin' / Too Long
- One More Time / Aerodynamic
- Aerodynamic Beats / Gabrielle , Forget About The World
- Prime Time Of Your Life / Brainwasher /Rollin 'and Scratchin' / Alive
- Da Funk / Dadftendirekt
- Human After All/Together/One More Time/Music Sounds Better With You

||

◀ ▶ ⏪ ⏩ ⏴ ⏵ ⏷

Now Playing

Playlists

- \* Spotify Starred Tracks
- mattheus
- muse
- daft punk live
- bach
- In Rainbows
- gorillaz
- Elbow Seldom Seen Kid Live
- Editors
- ont
- Coldplay
- Underground 80s
- Sonic Universe
- Dub Step Beyond
- Jack White - Lazaretto
- Chef'special - Passing Through
- Michael Jackson - XSCAPE
- Coldplay
- Bach, JS: Brandenburg Concertos
- Happy Camper — Happy Camper
- Editors - Tracks We Listen To On The Road by editorslabel
- Blaudzun

Search

Radio

Fullscreen

Settings

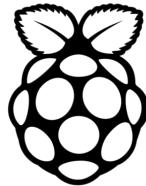
System

Playlists

- Alive: 2007 (Live)
- Daft Punk
- Robot Rock / Oh Yeah
- Touch It / Technologic
- Television Rules The Nation / Crescendolls
- Too Long / Steam Machine
- Around The World / Harder Better Faster Stronger
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- Aerodynamic Beats / Gabrielle , Forget About The World
- Prime Time Of Your Life / Brainwasher /Rollin 'and Scratchin' / Alive
- Da Funk / Dadftendirekt
- Human After All/Together/One More Time/Music Sounds Better With You

||

Don't Panic  
Coldplay



# 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
```

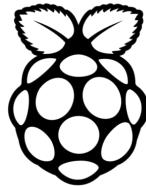
¿Cómo se configura?

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

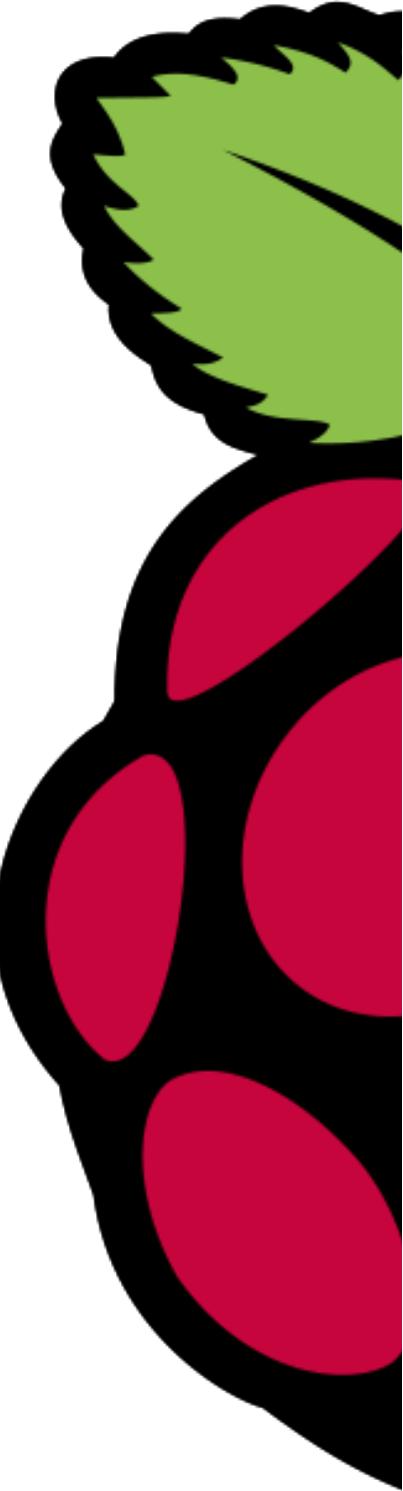
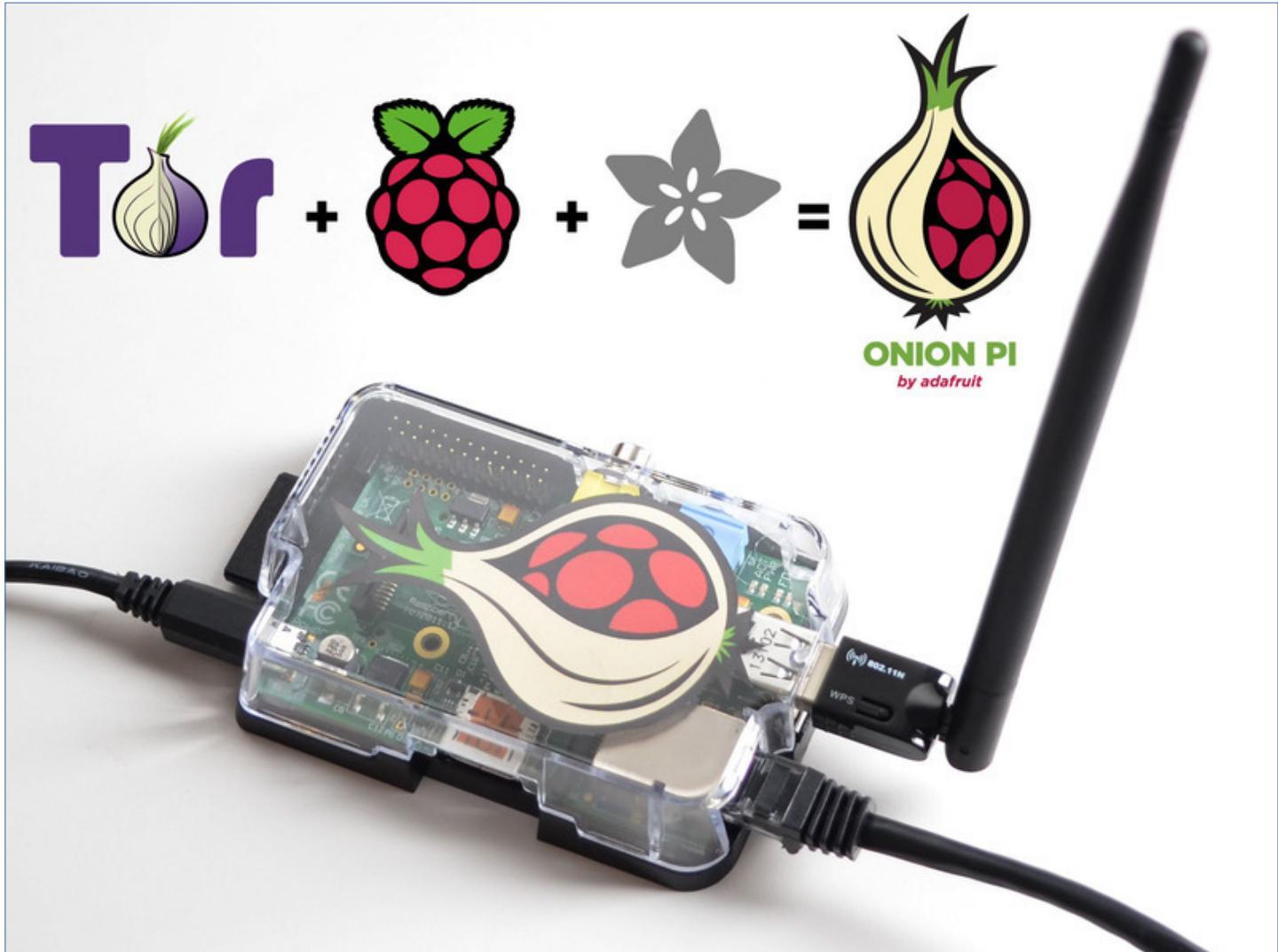
```
sudo apt-get install mopidy-spotify
```

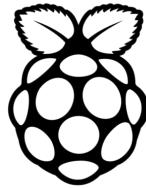
Nos vamos a `~/.config/mopidy/mopidy.conf` y añadimos

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

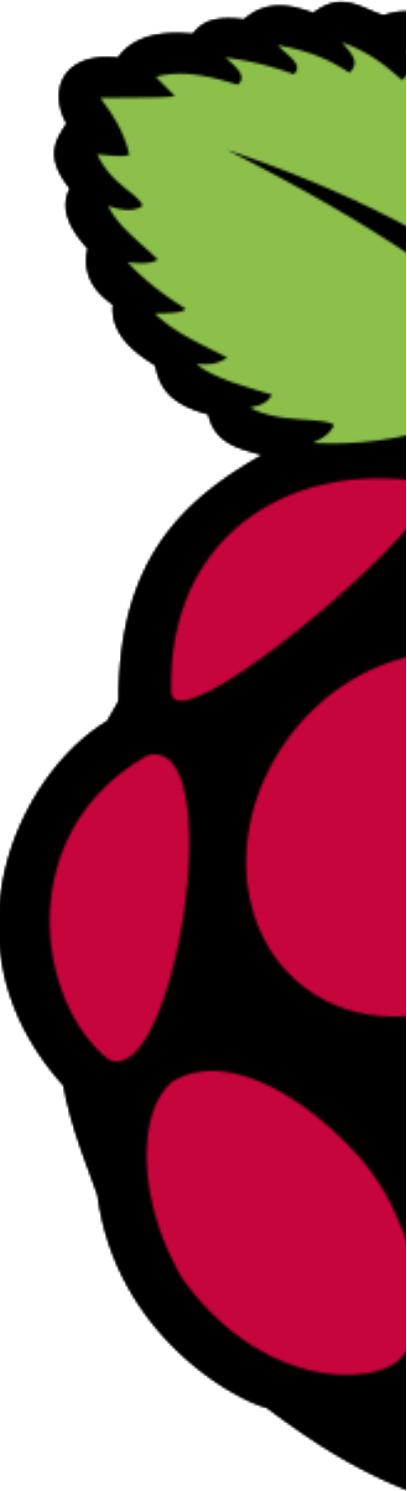


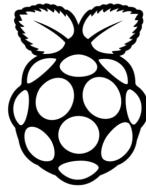
# Raspberry Pi





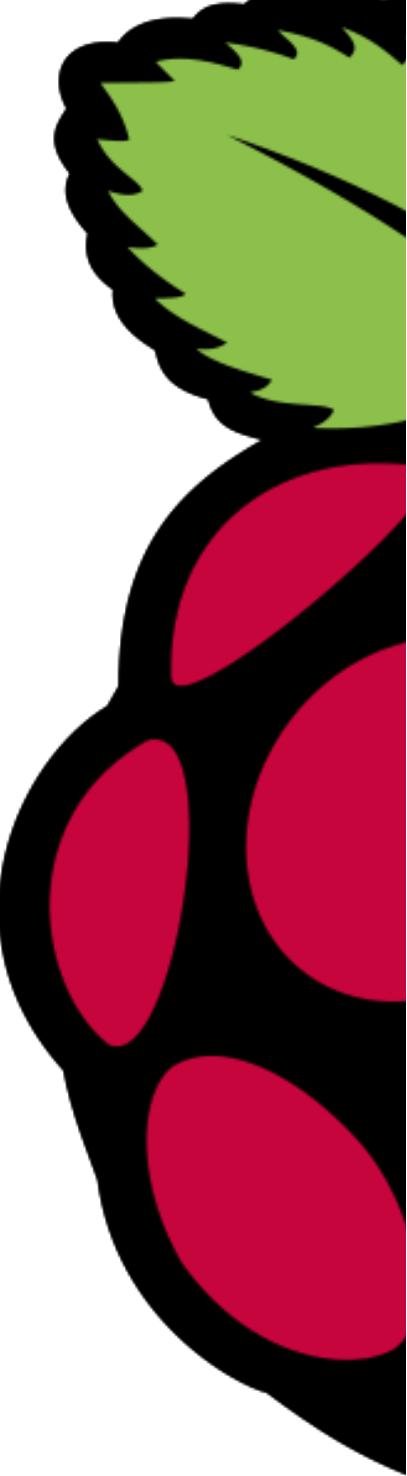
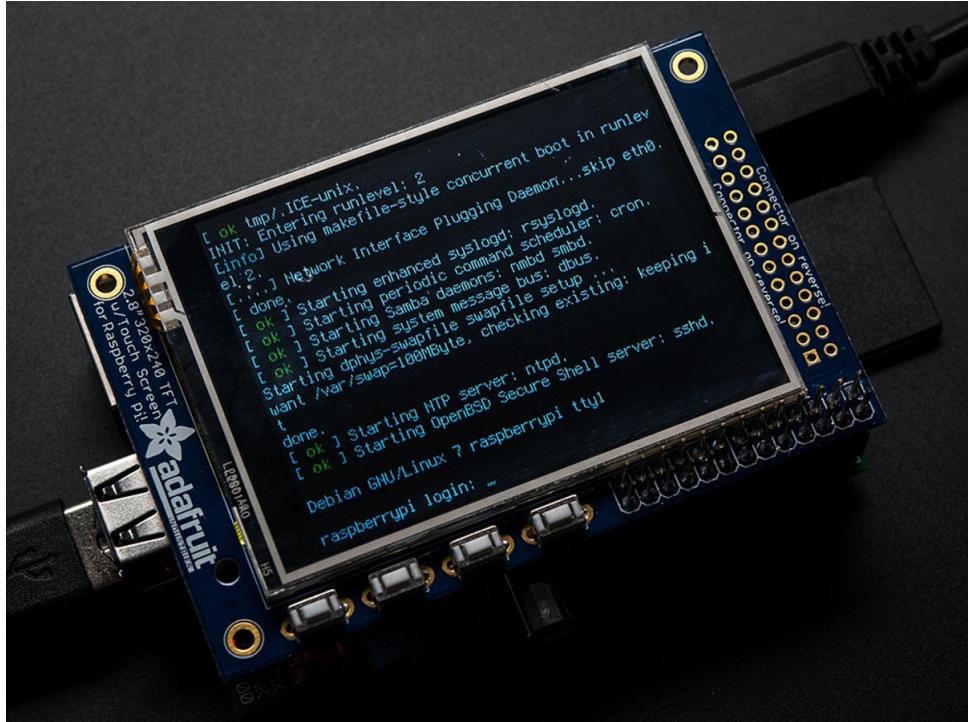
# Raspberry Pi

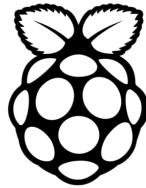




# Raspberry Pi

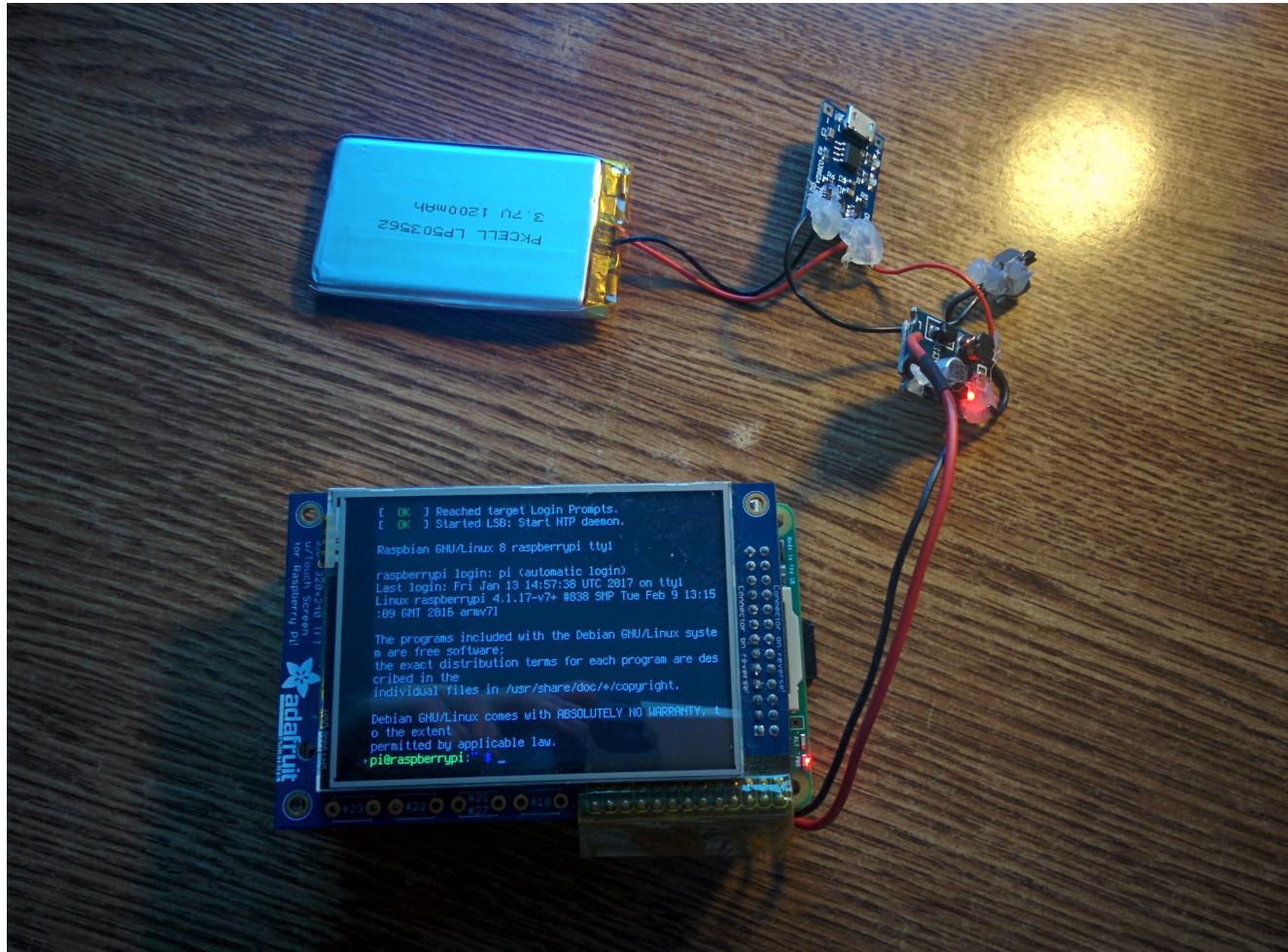
## Raspberry + TFT

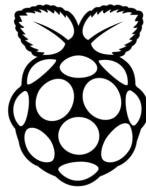




# Raspberry Pi

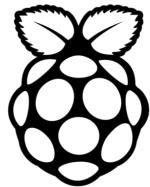
## Raspberry + TFT



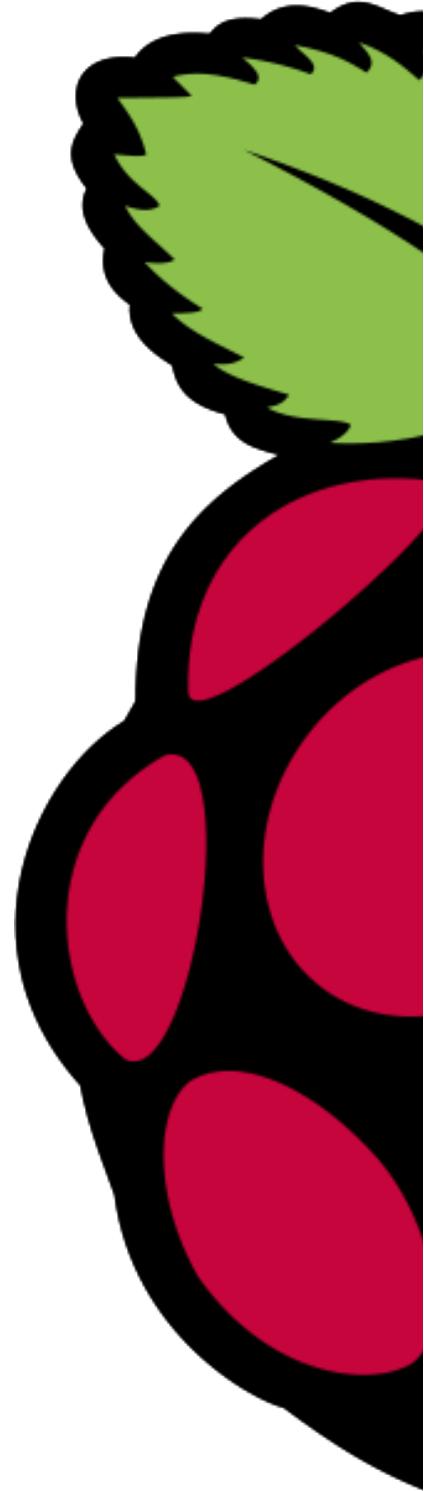


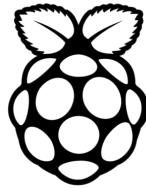
# Raspberry Pi



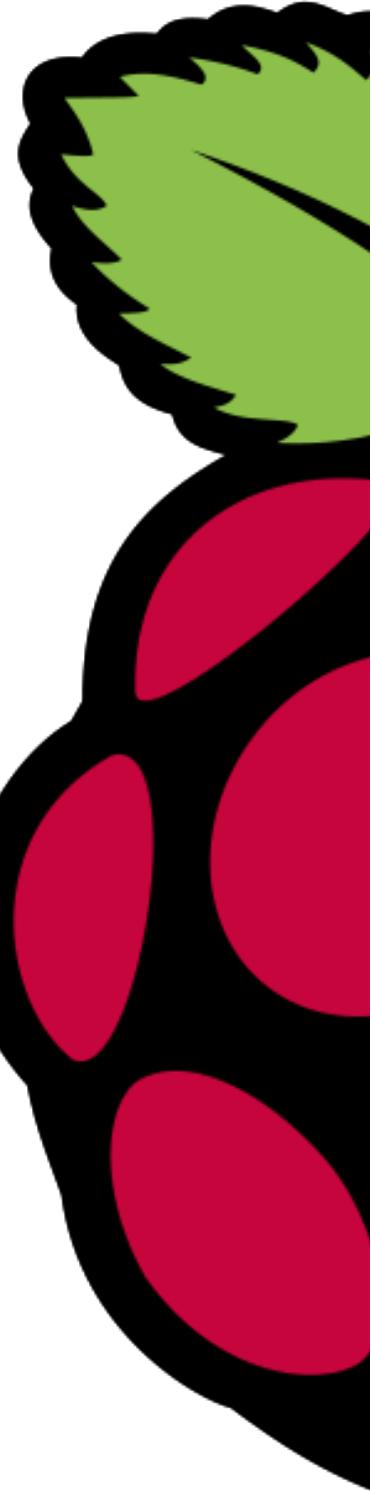


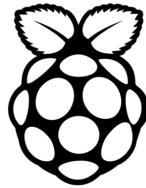
# Raspberry Pi



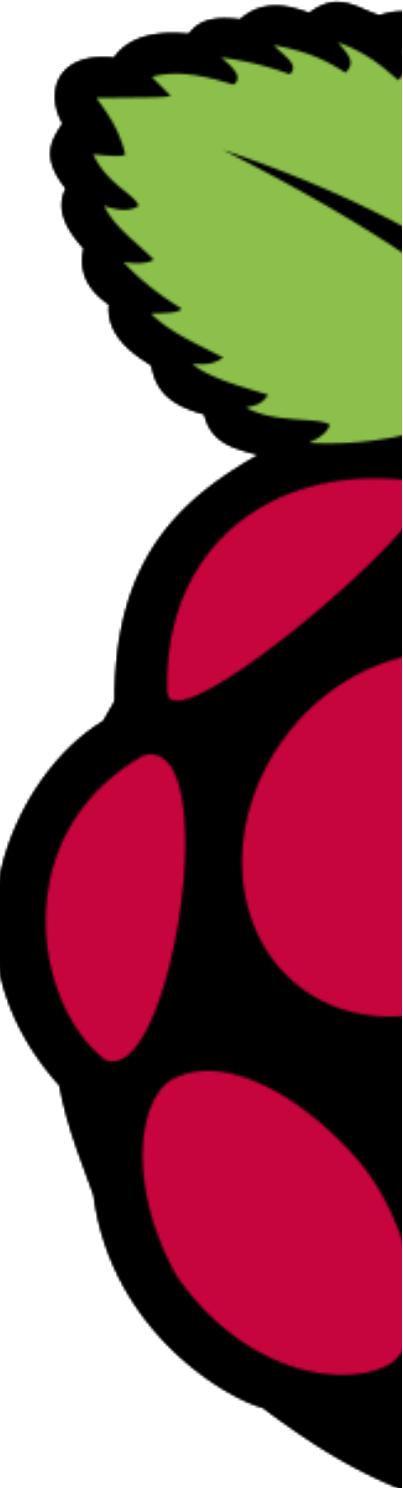


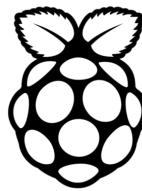
# Raspberry Pi

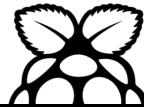




# Raspberry Pi



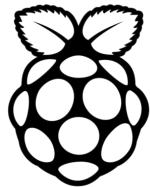




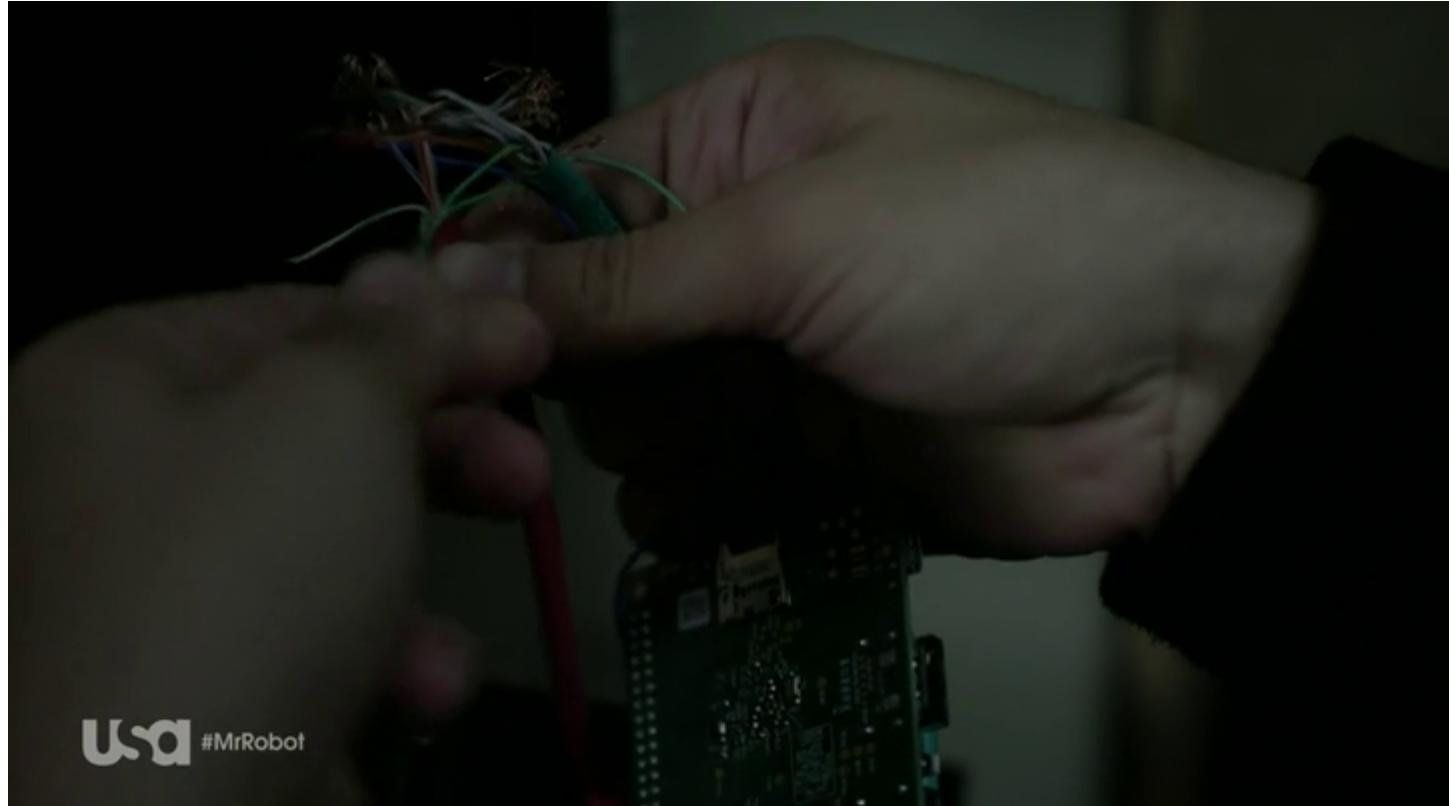
Raspberry Pi



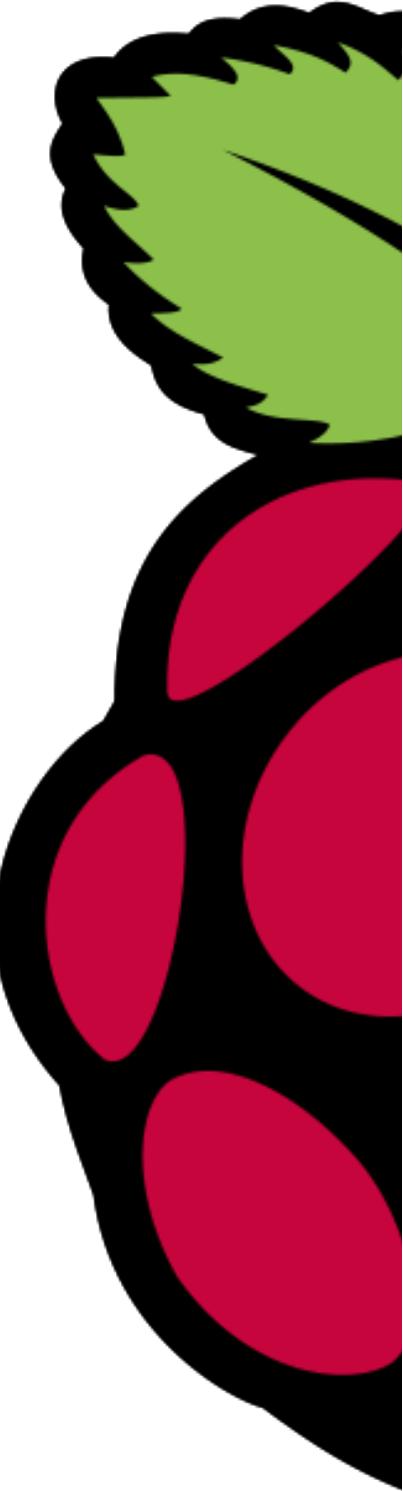
WE ARE MALICIOUS AND HOSTILE. WE ARE RELENTLESS.  
WE DO NOT COMPROMISE. WE DO NOT NEGOTIATE.

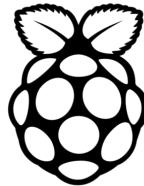


# Raspberry Pi

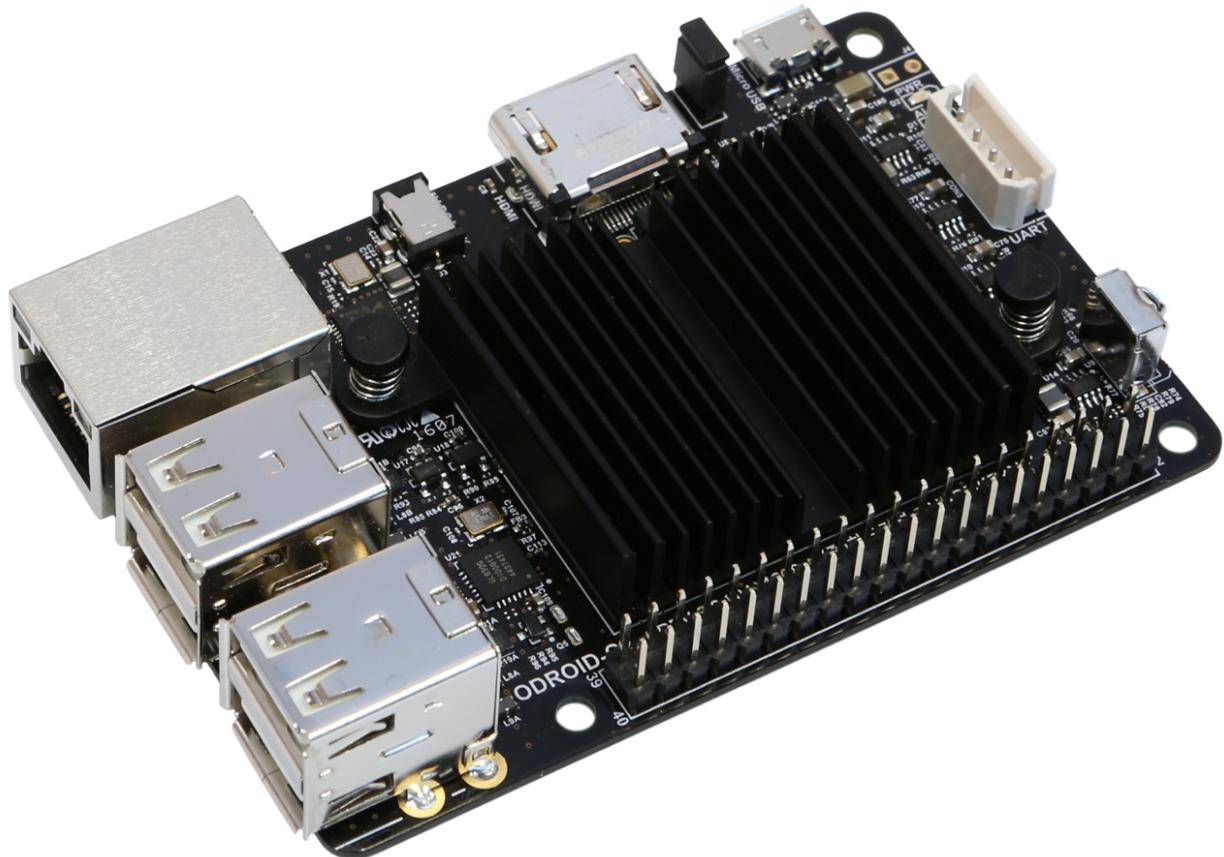


usa #MrRobot





# Raspberry Pi

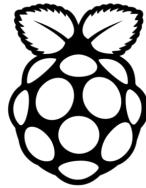


## ODROID-C2

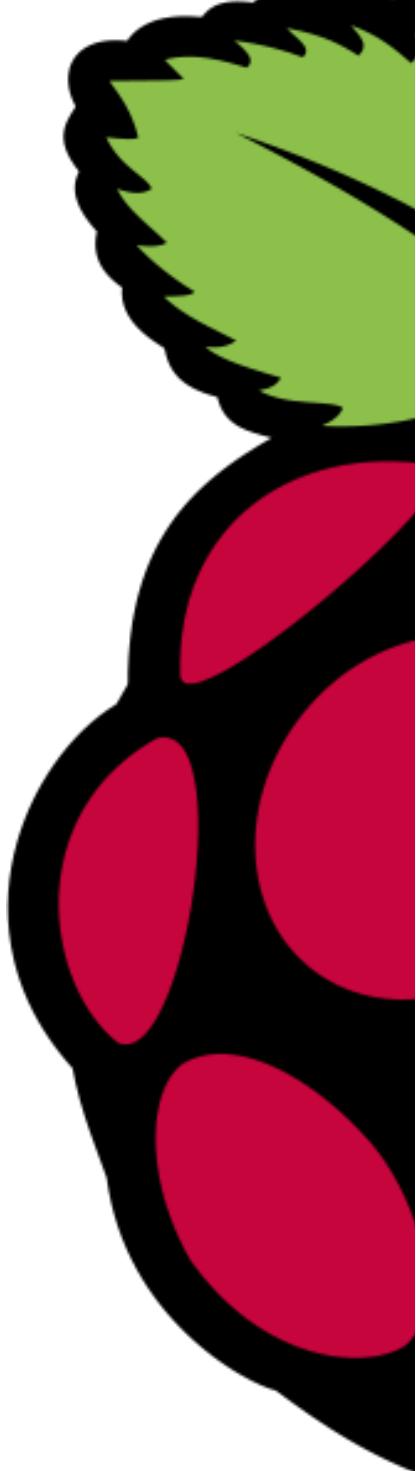
ARMv8 - 1.5Ghz quad core CPUs (64 bits)

2Gb DDR3 SDRAM

\$46.00

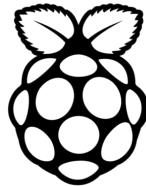


# Raspberry Pi



## ASUS Tinker Board

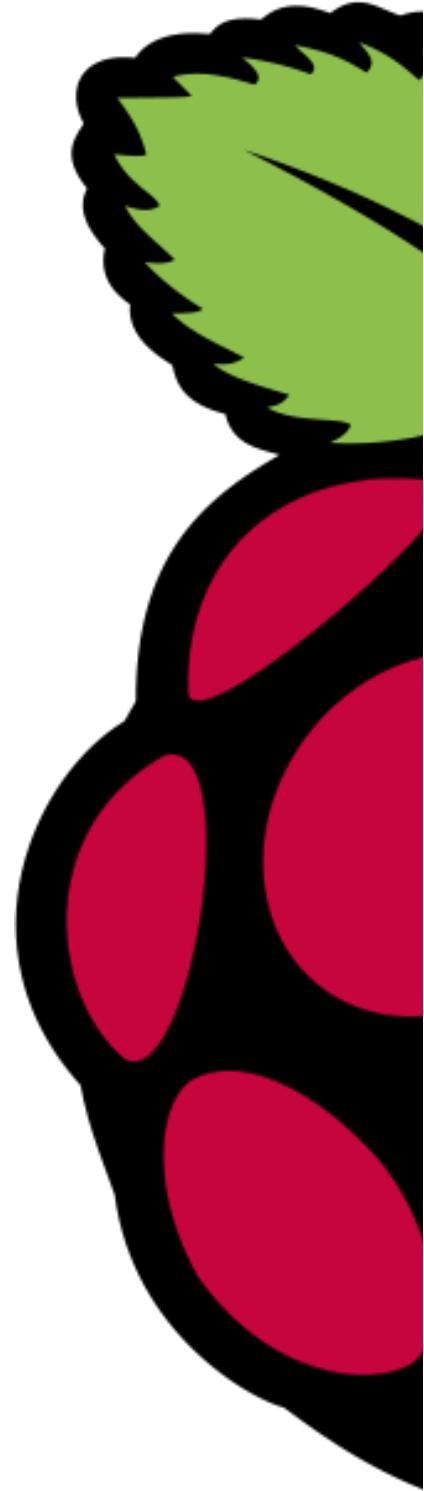
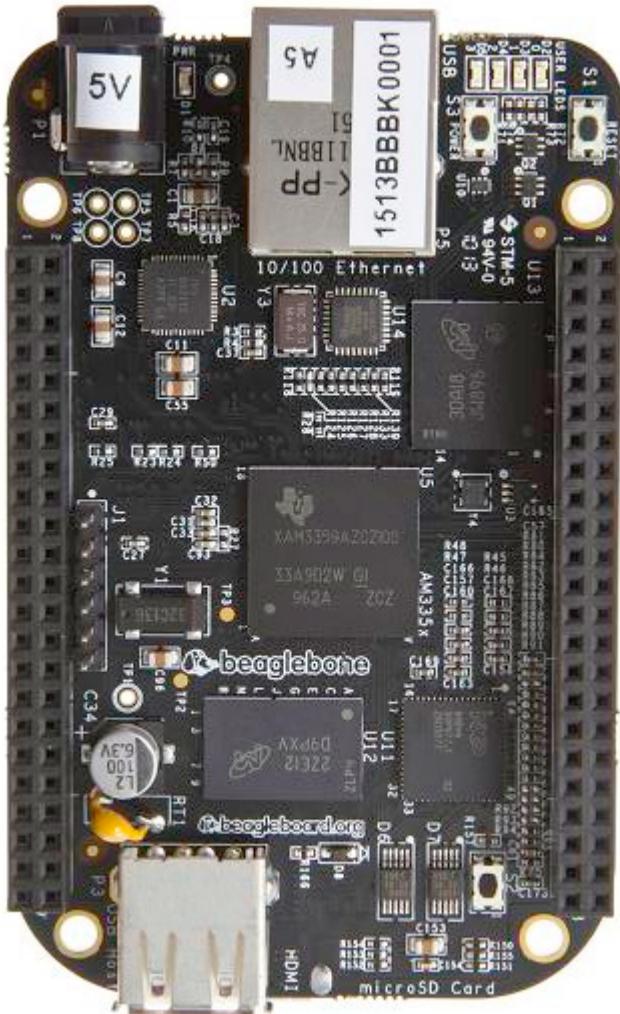
1.8Ghz Cortex A-17 Processor  
GPU quad-core ARM 600 Mhz  
2 GB LPDDR3 RAM  
\$60.0

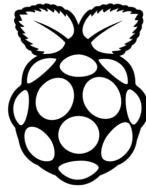


# Raspberry Pi

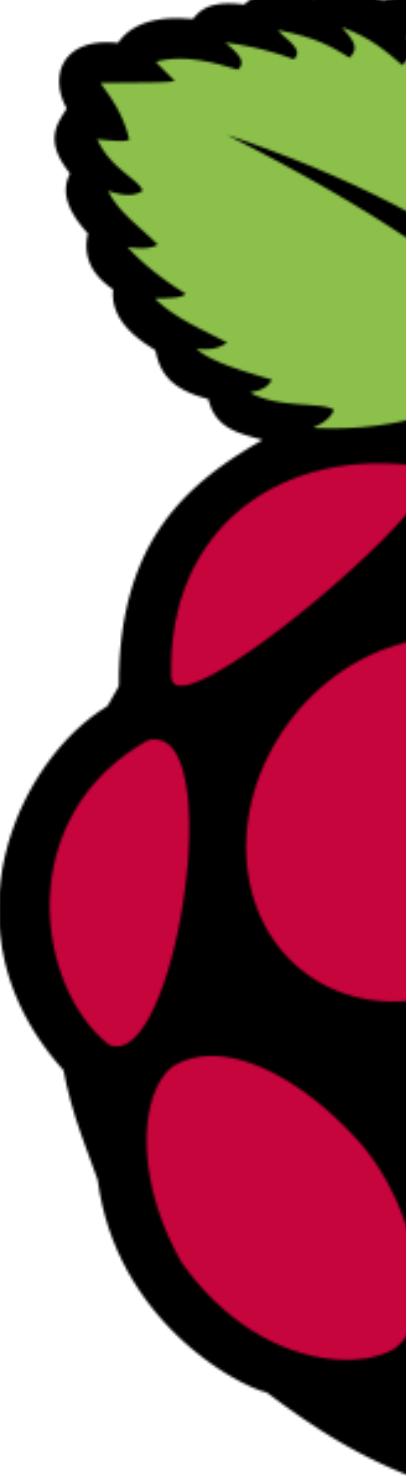
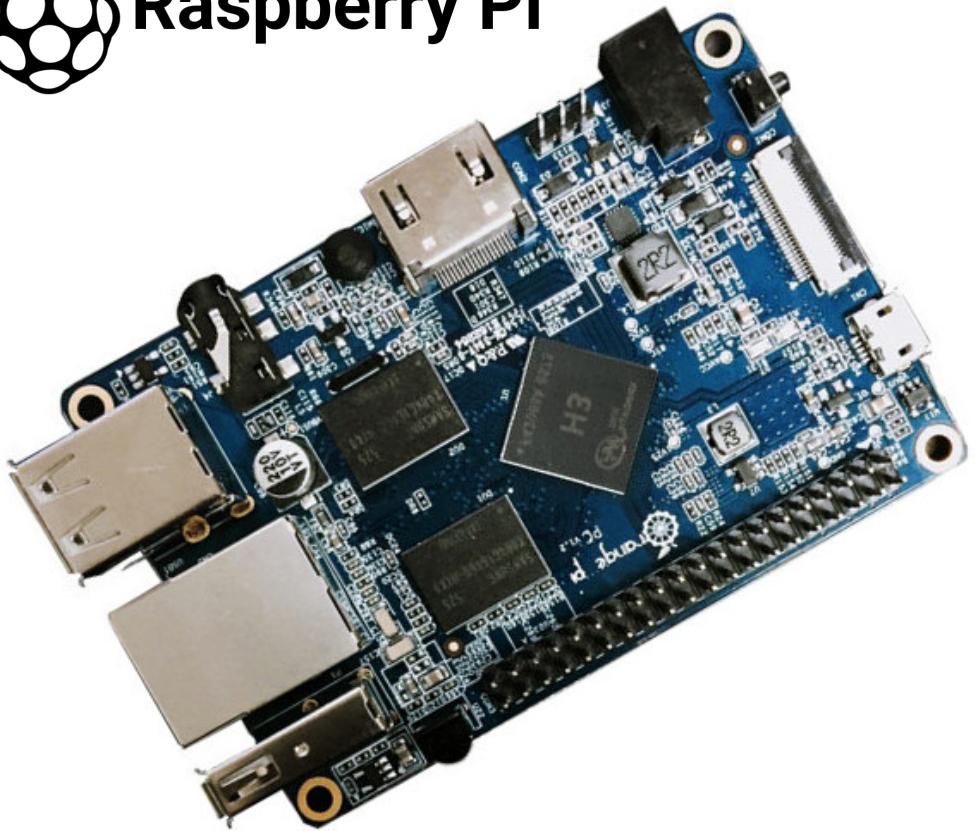
**BeagleBone Black**  
1GHz ARM Cortex-A8  
processor  
512MB DDR3 RAM  
4GB on-board flash  
storage

\$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

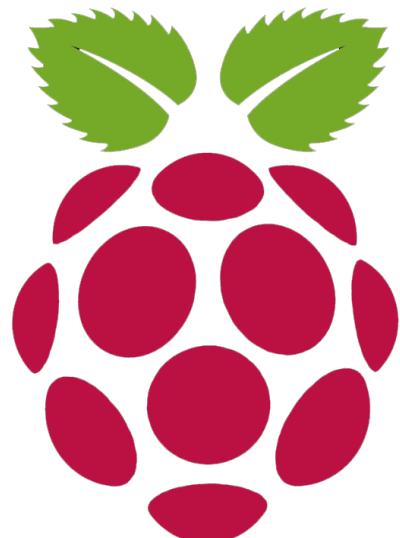
1 GB DDR3 RAM

14.01€

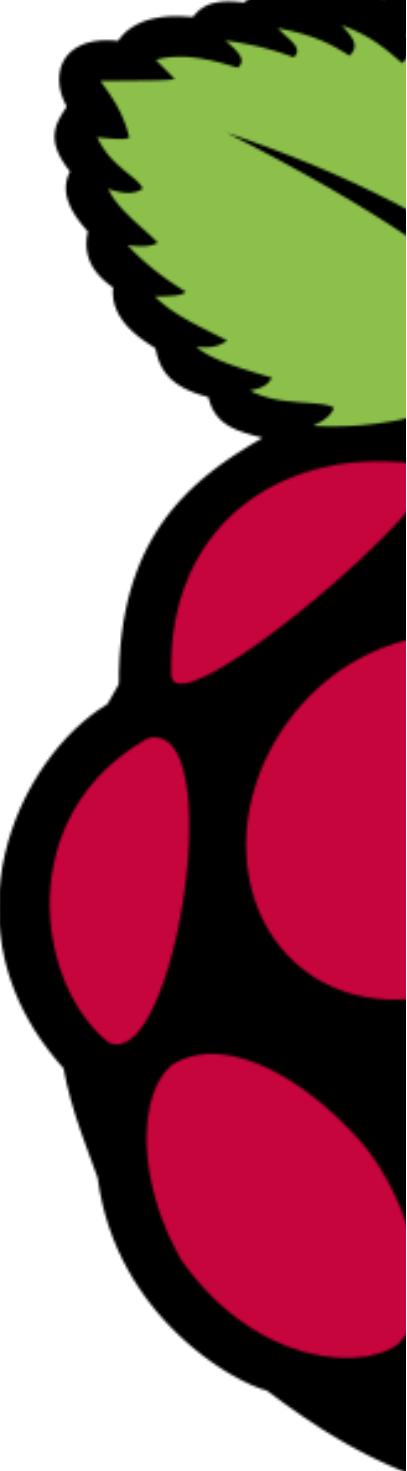


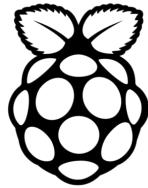
#irc

# element14



Raspberry Pi Forum





Raspberry Pi

