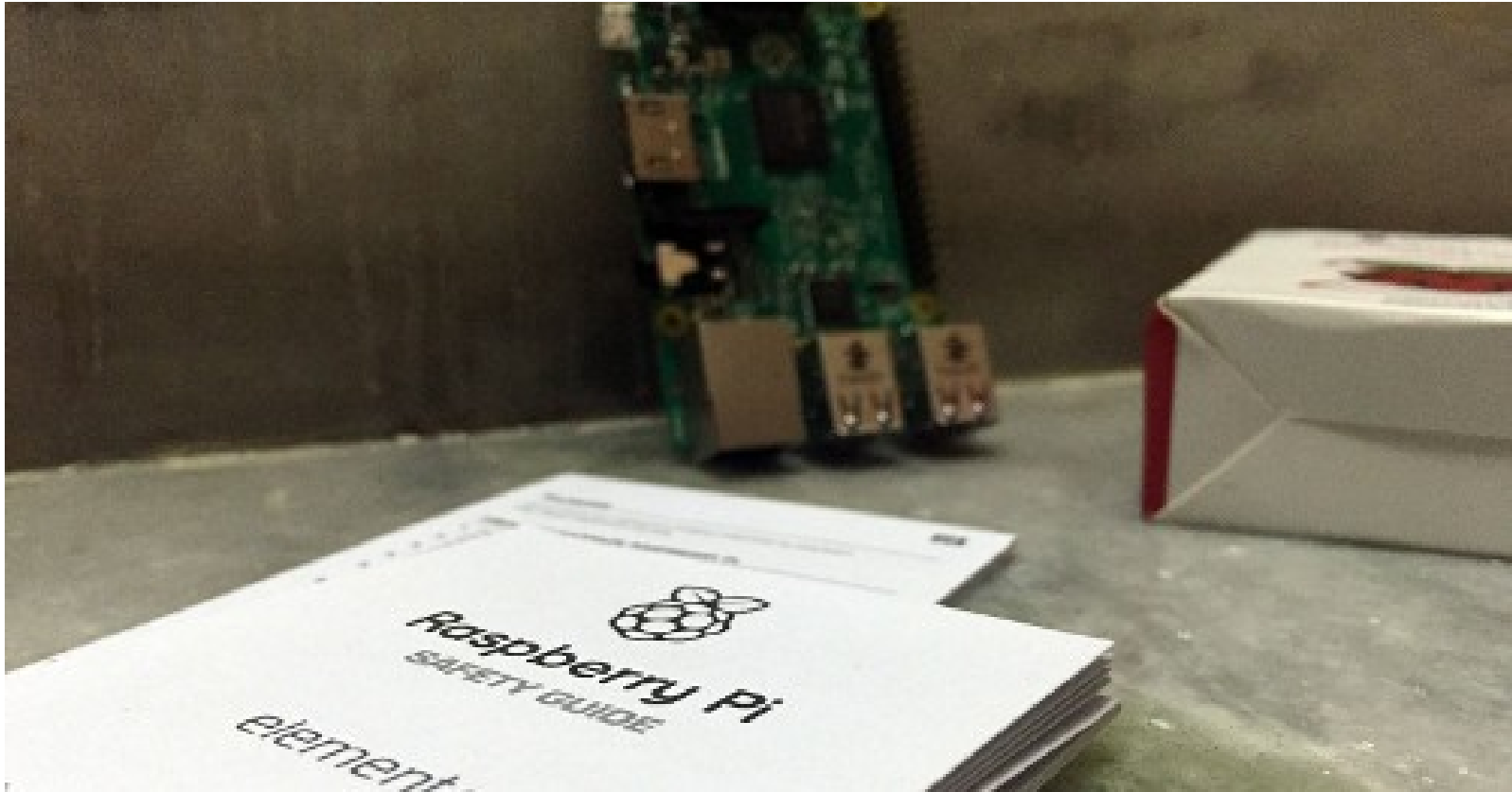


# “Raspberry Pi - Instalación”

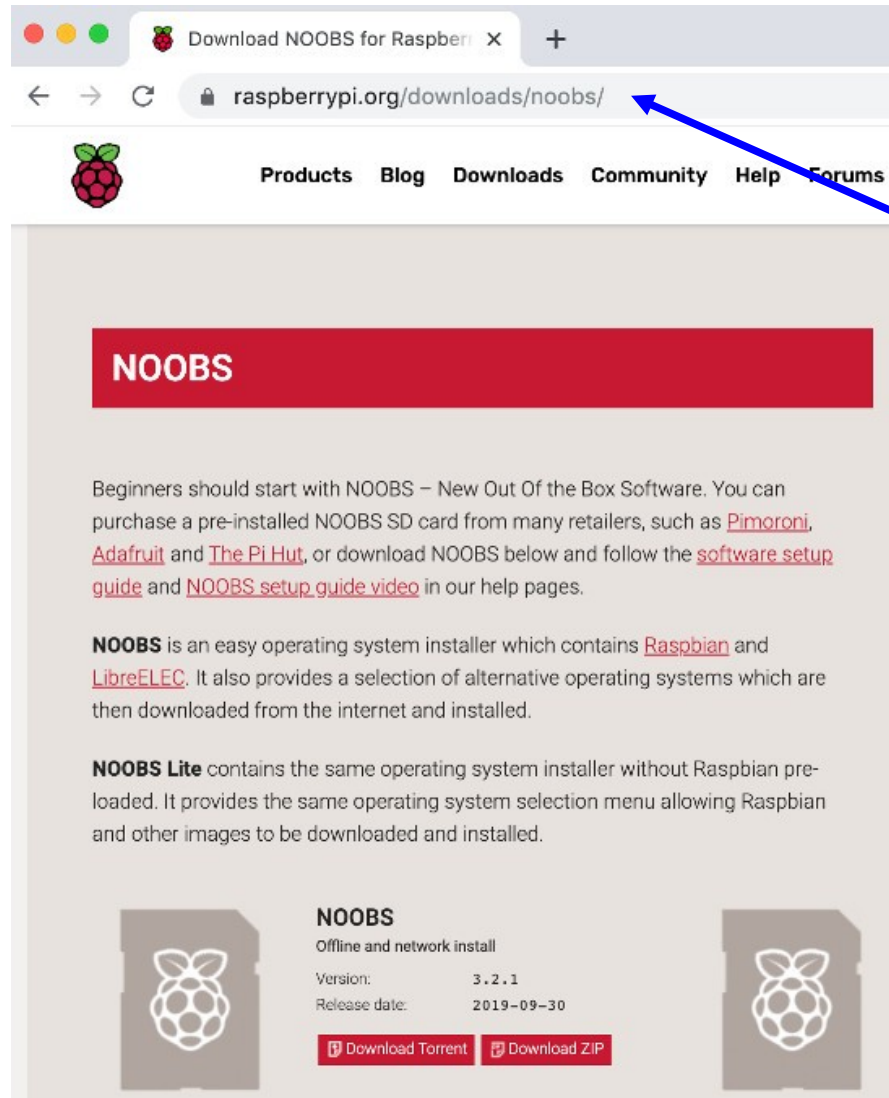


Rogelio Ferreira Escutia

# Instalación

# Página Oficial de Raspberry Pi

- Ir a la página oficial:



The screenshot shows a web browser window with the address bar containing the URL [raspberrypi.org/downloads/noobs/](https://www.raspberrypi.org/downloads/noobs/). The page features a navigation menu with links for Products, Blog, Downloads, Community, Help, and Forums. The main content area is titled "NOOBS" and includes the following text:

Beginners should start with NOOBS – New Out Of the Box Software. You can purchase a pre-installed NOOBS SD card from many retailers, such as [Pimoroni](#), [Adafruit](#) and [The Pi Hut](#), or download NOOBS below and follow the [software setup guide](#) and [NOOBS setup guide video](#) in our help pages.

**NOOBS** is an easy operating system installer which contains [Raspbian](#) and [LibreELEC](#). It also provides a selection of alternative operating systems which are then downloaded from the internet and installed.

**NOOBS Lite** contains the same operating system installer without Raspbian pre-loaded. It provides the same operating system selection menu allowing Raspbian and other images to be downloaded and installed.

At the bottom, there are two SD card icons. The left one is labeled "NOOBS" and "Offline and network install". Below it, the version is listed as "3.2.1" and the release date as "2019-09-30". There are two buttons: "Download Torrent" and "Download ZIP".

”Raspberry Pi”, <https://www.raspberrypi.org/downloads/noobs/> , octubre 2019



# NOOBS

- **Descargar NOOBS:**



The screenshot shows the NOOBS download page. On the left is a large icon of a Raspberry Pi SD card with the Raspberry Pi logo. To the right, the text reads 'NOOBS' in large bold letters, followed by 'Offline and network install'. Below this, the version is listed as '3.2.1' and the release date as '2019-09-30'. At the bottom, there are two red buttons: 'Download Torrent' and 'Download ZIP'. A red arrow points from the bottom right of the page towards the 'Download ZIP' button.

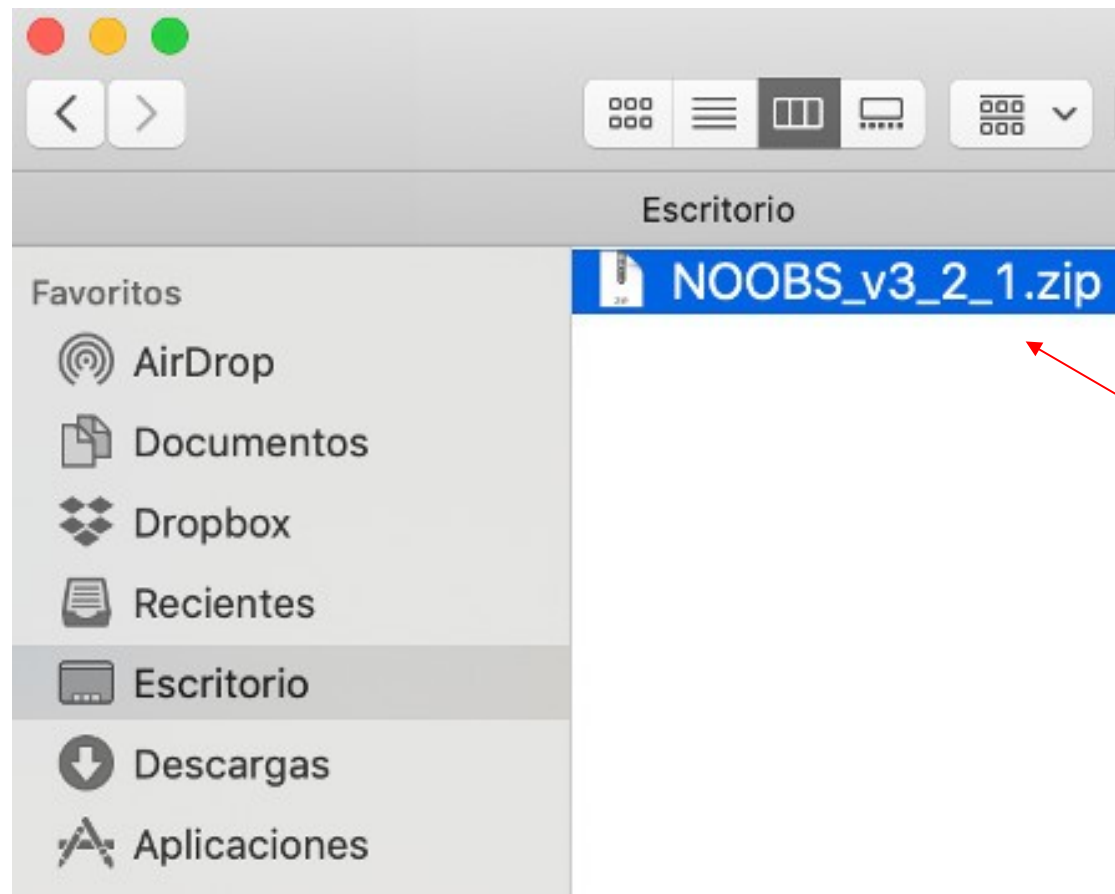
**NOOBS**  
Offline and network install

Version: 3.2.1  
Release date: 2019-09-30

[Download Torrent](#) [Download ZIP](#)

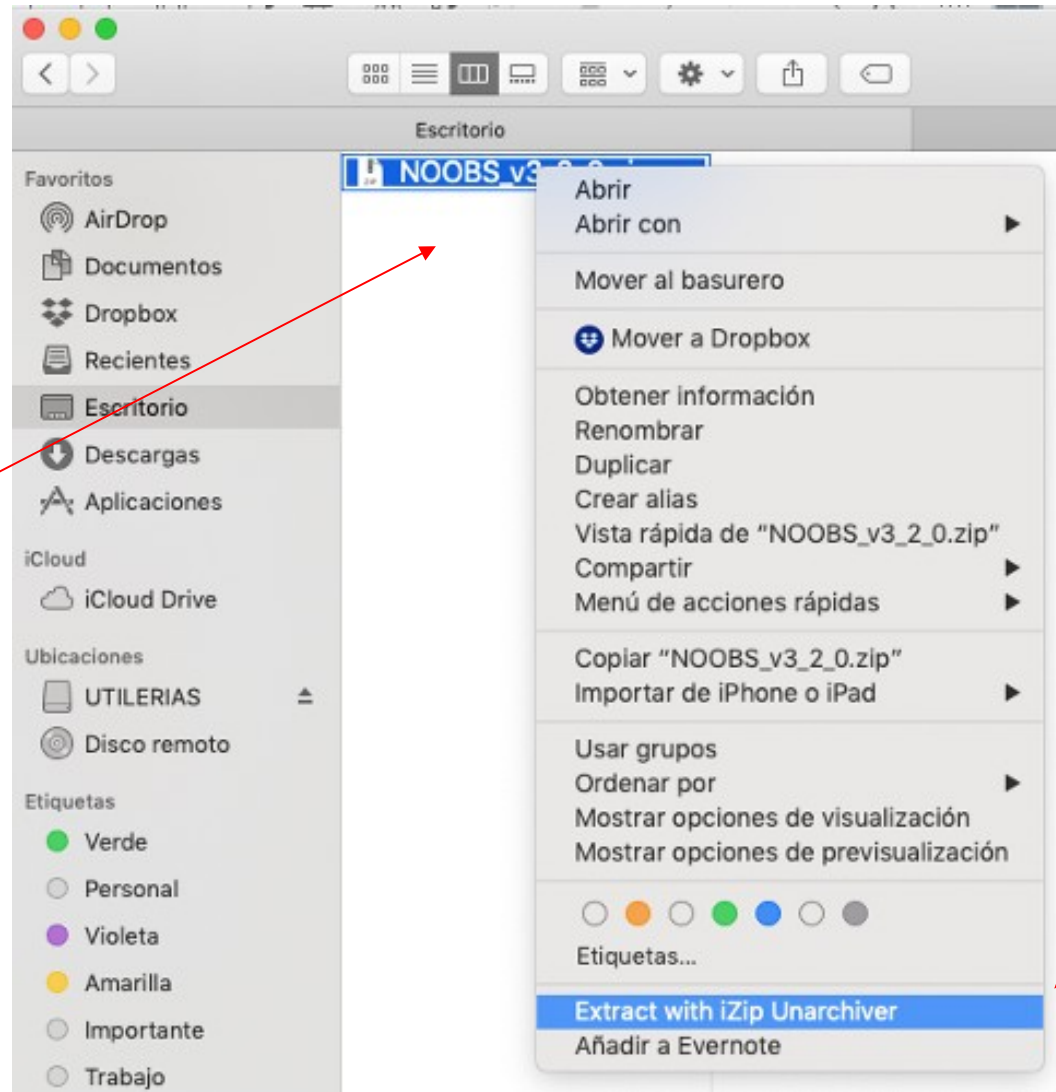
# Archivo descargado

- El archivo descargado está en formato ZIP



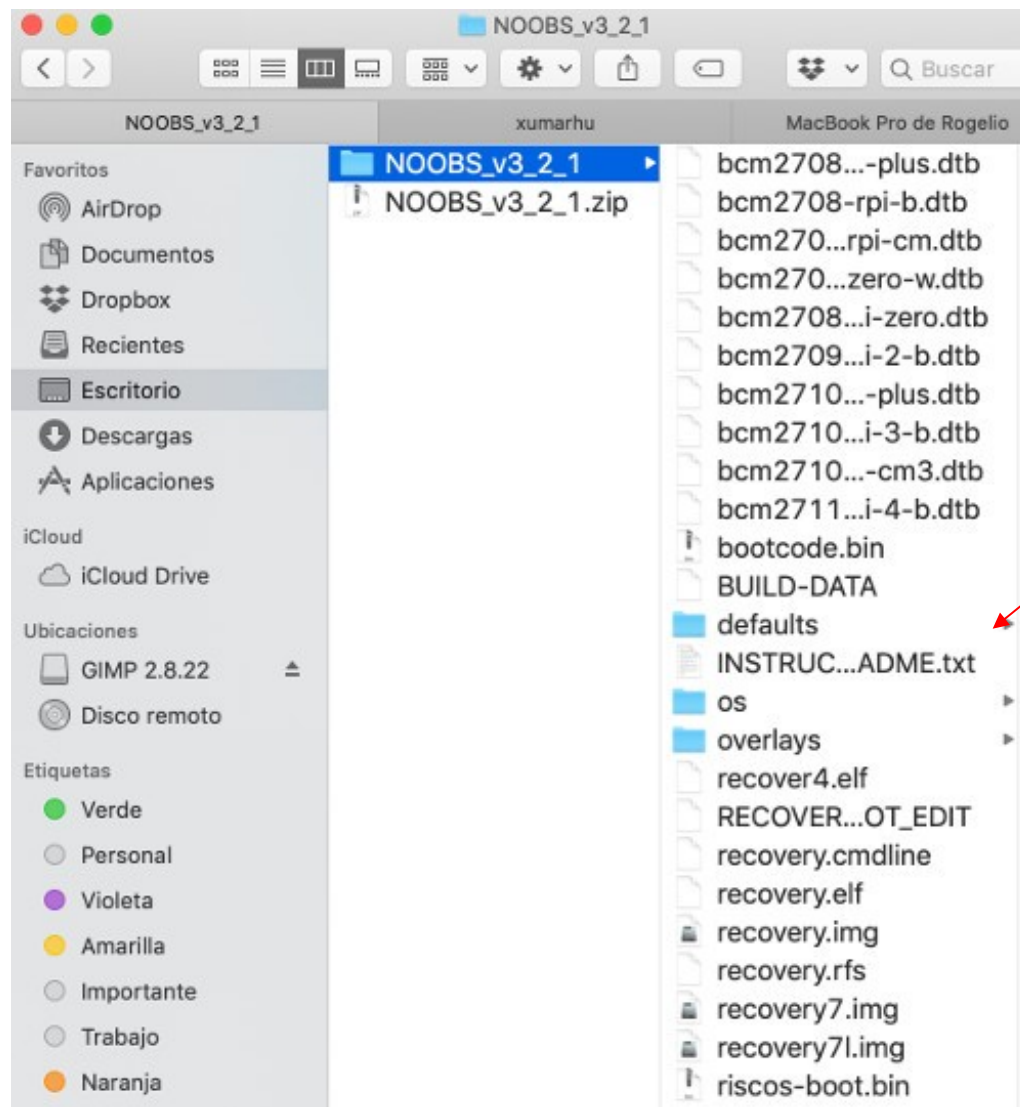
# Descomprimir

- **Descomprimos el archivo ZIP**



# Archivos finales

- Los archivos ya descomprimidos serán los que se van a copiar en el directorio raíz de la tarjeta Micro SD:



# Tarjeta Micro SD

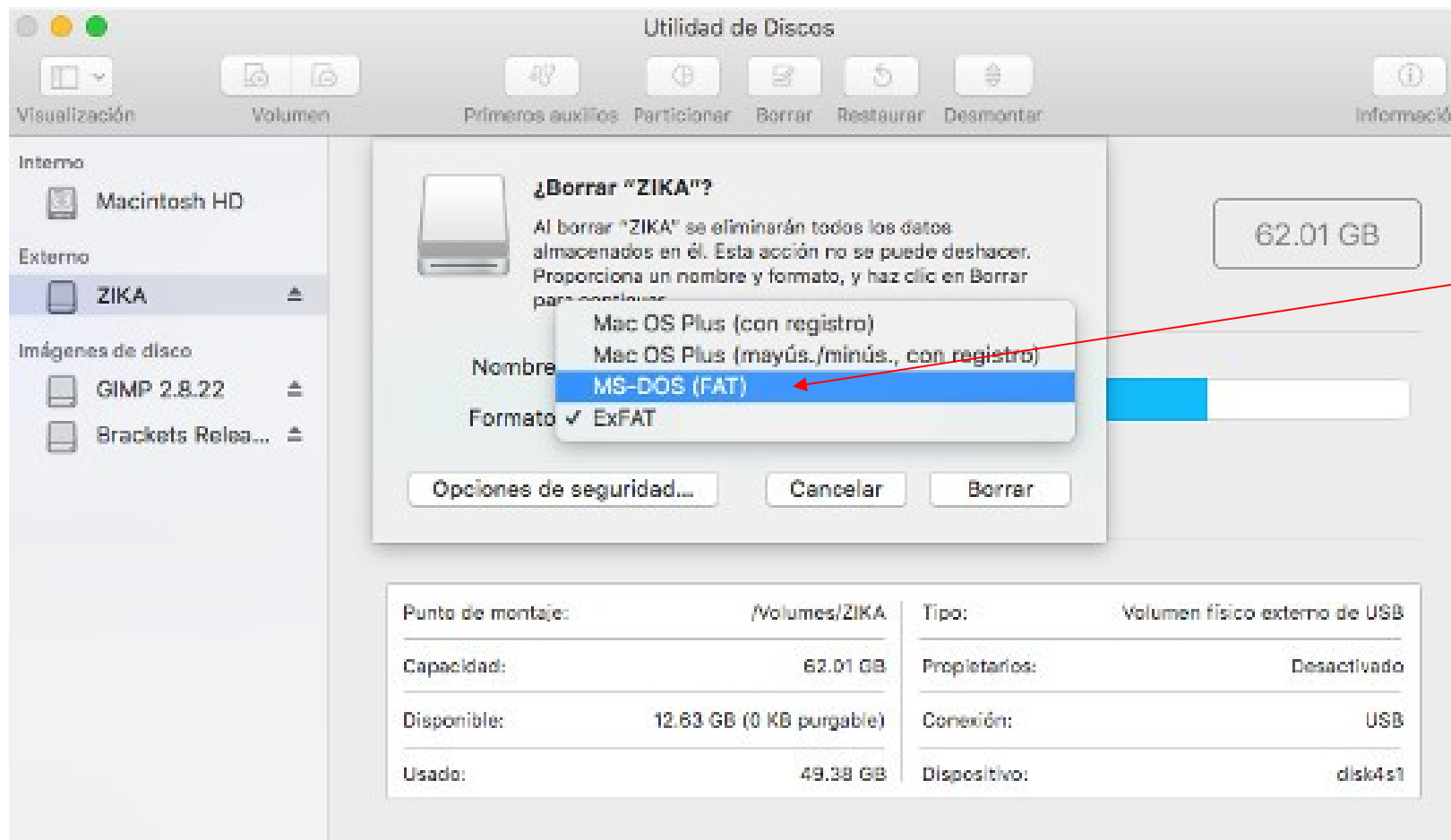
- Se requiere una tarjeta micro SD (se recomienda de 64 GB y clase 10).





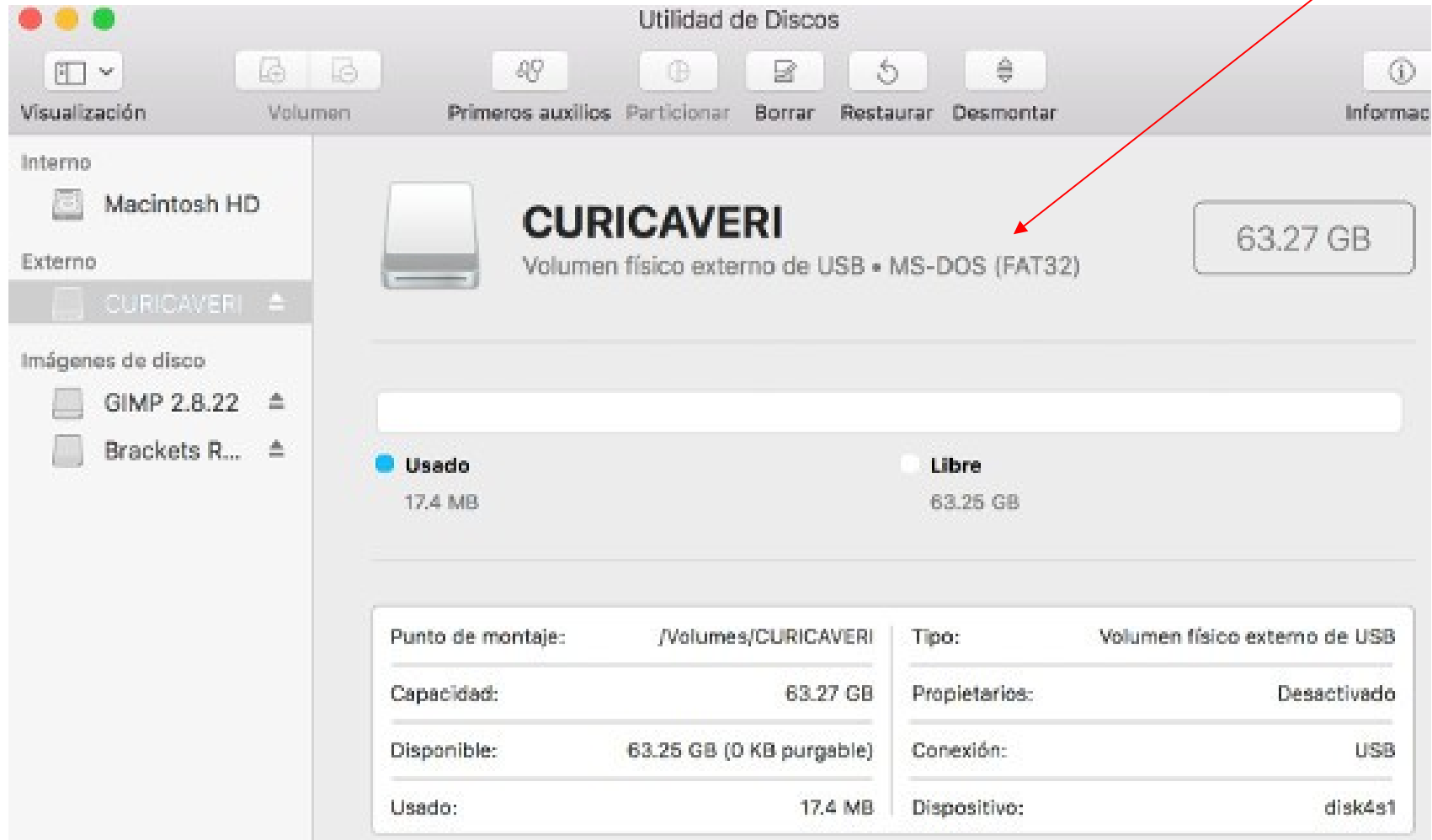
# Formato

- Formatear la tarjeta a sistema FAT (FAT 32 bits).
- **NOTA: No utilizar formato ExtFAT (FAT 64 bits) o ningún otro formato!**



# Formato

- Memoria lista formateada con “Utilidad de Discos” (Mac):



# SD Formatter

- Si el sistema operativo no tiene la opción para formatear FAT 32 bits, se puede utilizar la herramienta oficial de la SD Association:



## SD Memory Card Formatter

[HOME](#) > [Downloads](#) > SD Memory Card Formatter

- > Downloads
- > SD Association Whitepapers
- > Simplified Specifications
- > SD Memory Card Formatter
  - SD Memory Card Formatter for Windows Download
  - SD Memory Card Formatter for Mac Download
  - FAQ
- > SD Association Brochure Download



### SD Memory Card Formatter 5.0.1 for SD/SDHC/SDXC

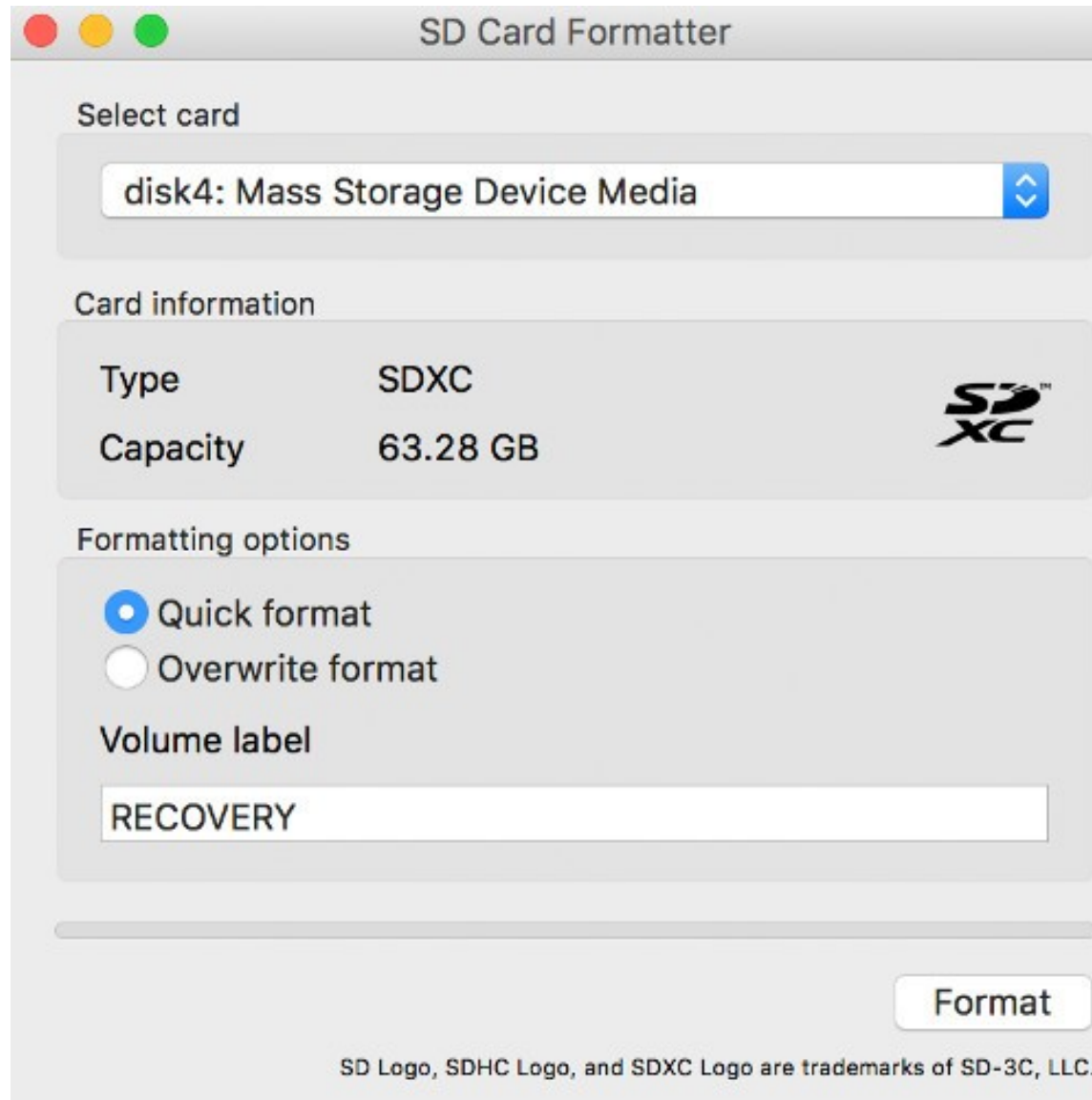
The SD Memory Card Formatter formats SD Memory Card, SDHC Memory Card and SDXC Memory Card (respectively SD/SDHC/SDXC Cards) complying with the SD File System Specification created by the SD Association (SDA).

It is strongly recommended to use the SD Memory Card Formatter to format SD/SDHC/SDXC Cards rather than using formatting tools provided with individual operating systems. In general, formatting tools provided with operating systems can format various storage media including SD/SDHC/SDXC Cards, but it may not be optimized for SD/SDHC/SDXC Cards and it may result in lower performance.

SD/SDHC/SDXC Cards have a "Protected Area" for SD Card security purposes. The SD Memory Card Formatter does not format the protected area in the SD/SDHC/SDXC Cards. The protected area shall be formatted by an appropriate PC application or SD host devices that provide SD security function.

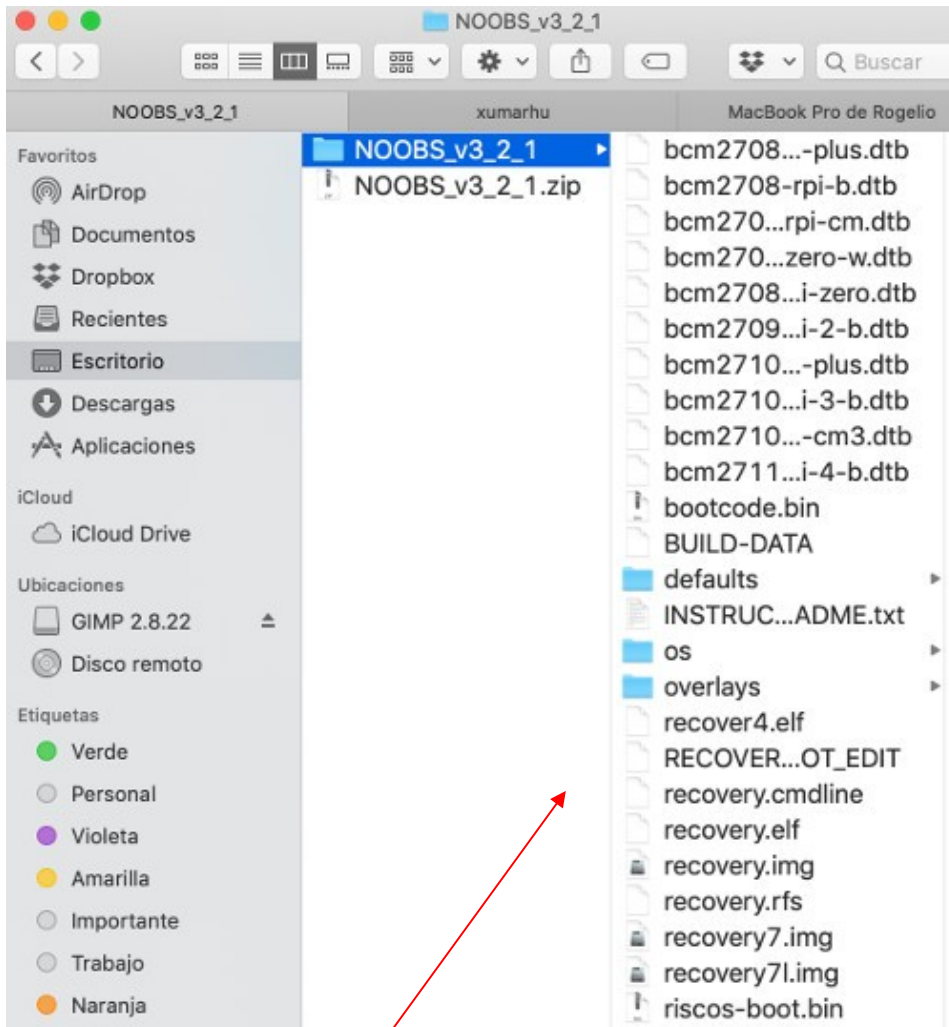


# SD Formatter



# Copiar

- Copiar los archivos que se descomprimieron anteriormente a la memoria Micro SD (sólo los archivos, no la carpeta):



# Raspberry Pi

- Se requiere un Raspberry Pi 4





# Insertar Memoria

- Colocar la memoria Micro SD dentro del Raspberry Pi



# Raspberry Pi Compatibles



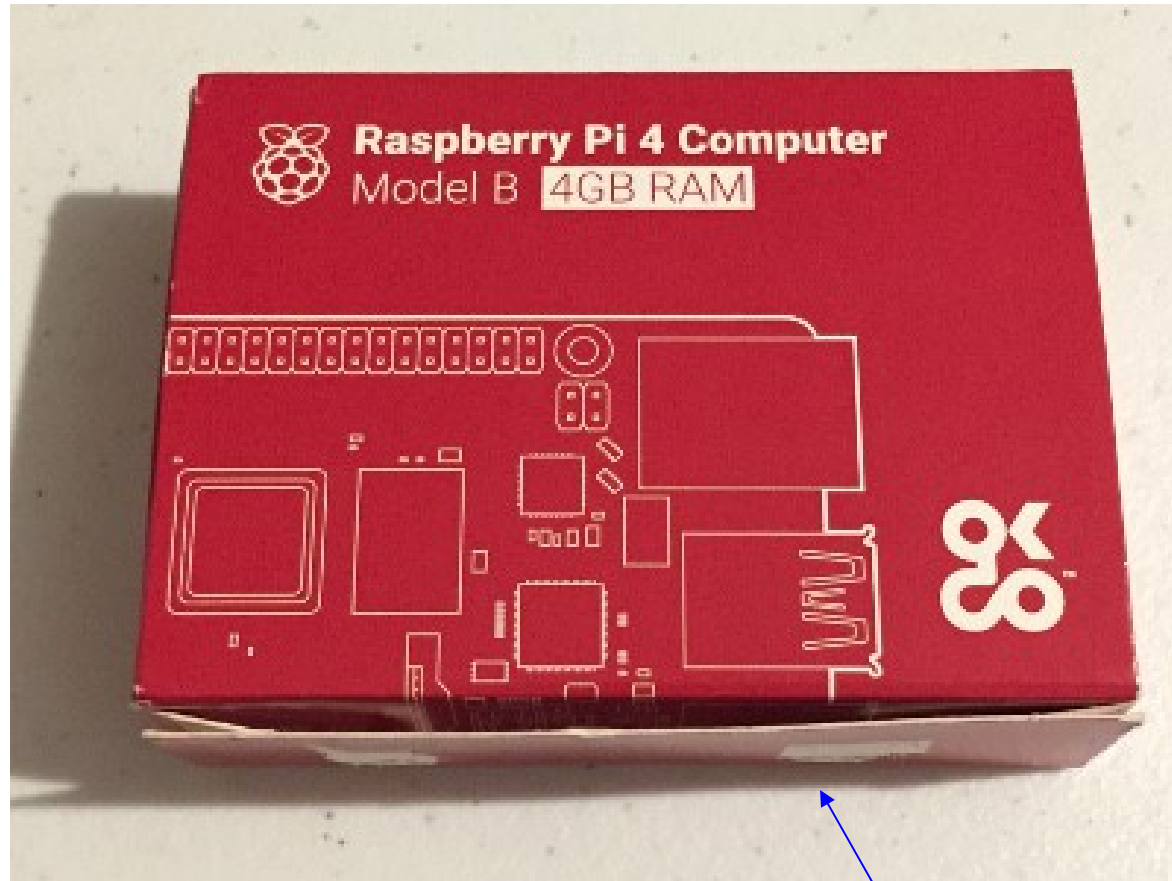
- **Fabricado en China**

- **Fabricado en Inglaterra**





# Raspberry Pi Compatibles



- **Fabricado en Inglaterra**

# Carcasa

- Se recomienda una carcasa (cajita) para proteger a la Raspberry Pi:



# Ensamble

- Colocar el Raspberry Pi dentro de su carcasa.



**NEW**

More powerful processor

Choice of RAM

1GB 2GB 4GB

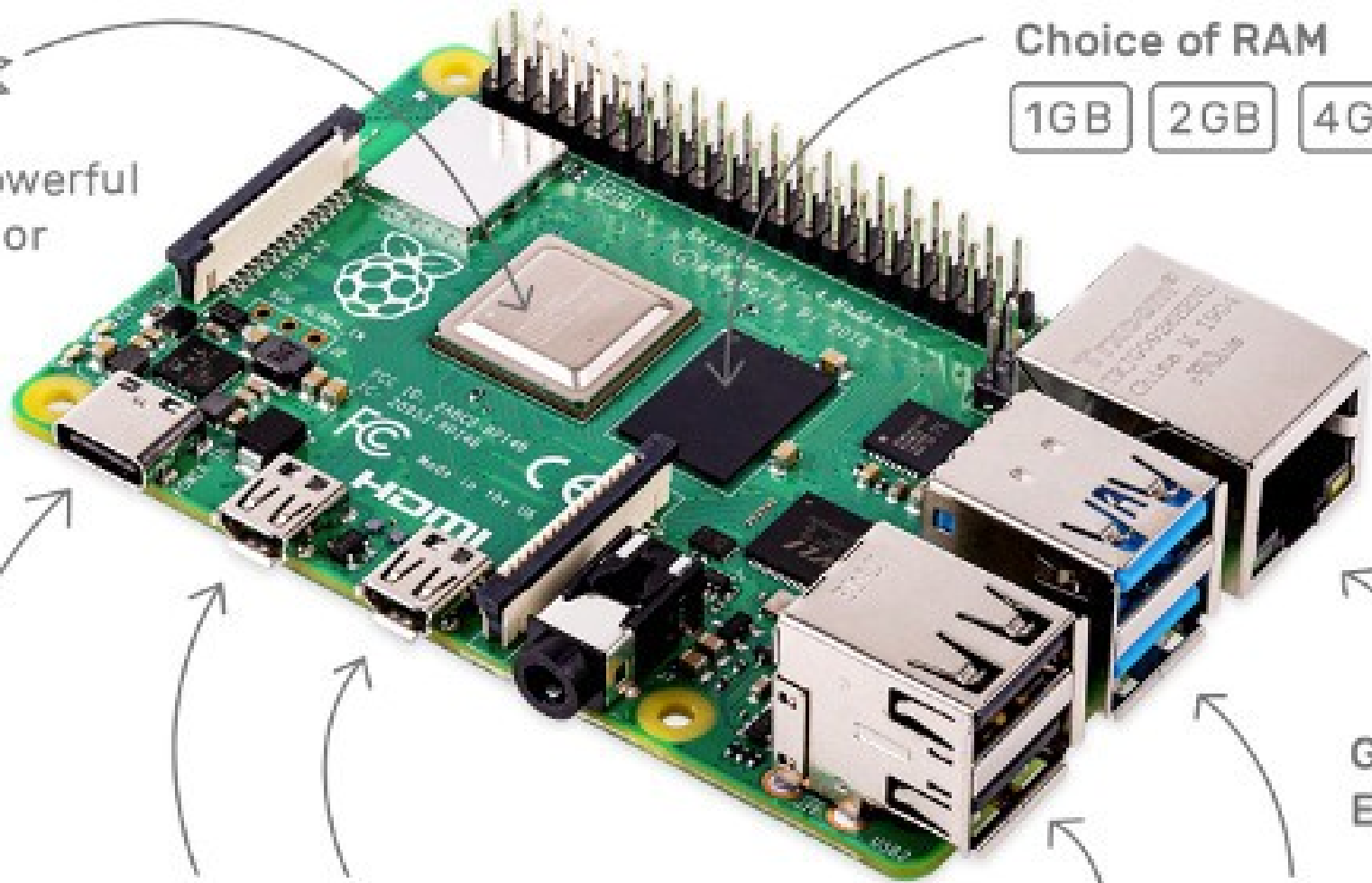
USB-C Power supply

MICRO HDMI PORTS  
Supporting 2 x 4K displays

USB 2

USB 3

GIGABIT  
ETHERNET



# Monitor

- Se requiere un monitor con conexión HDMI



# Monitor

- **Monitor Samsung HDMI de 24 pulgadas**





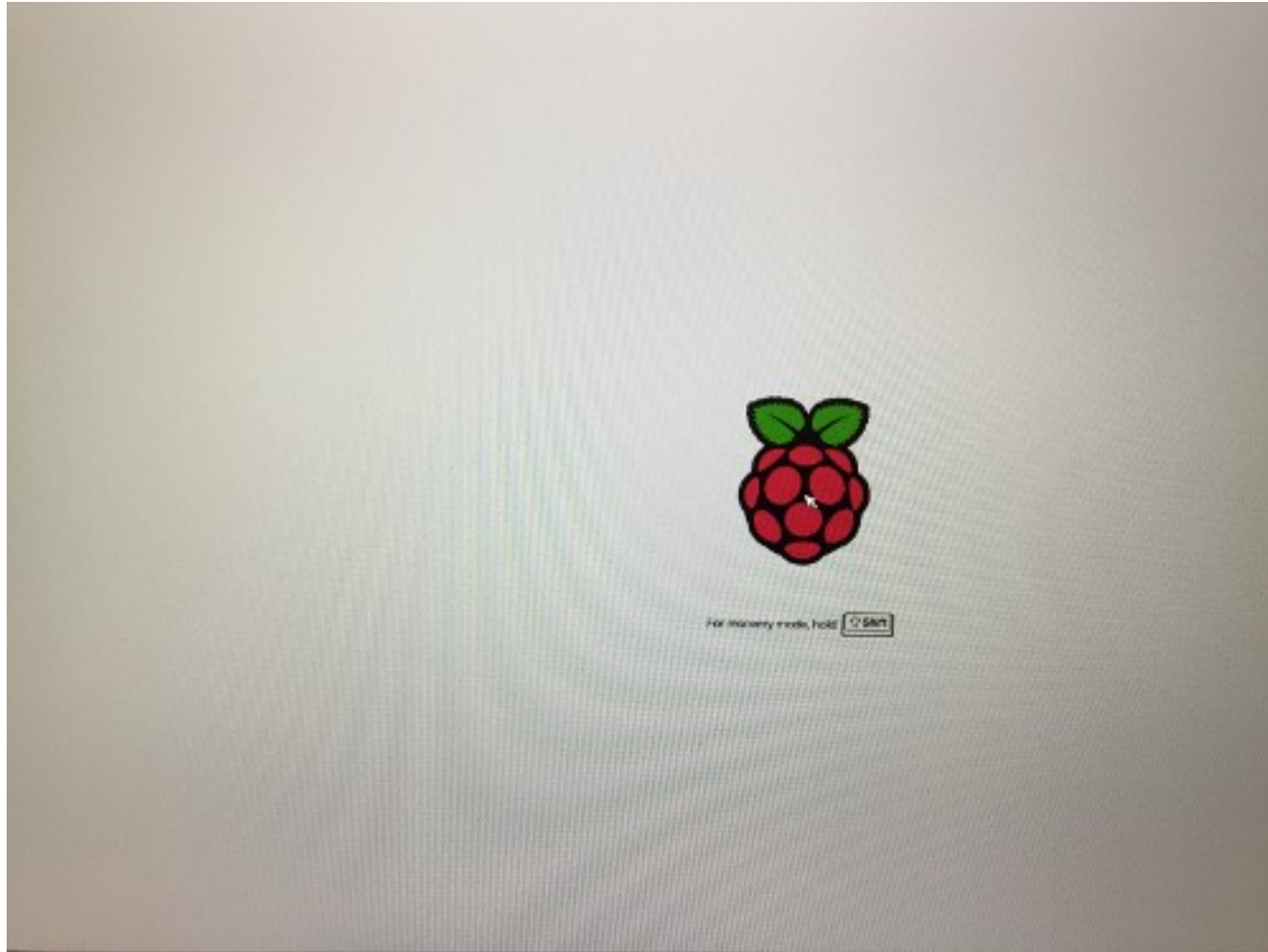
# Inicio

- **Pantalla de inicio:**



# Arranque

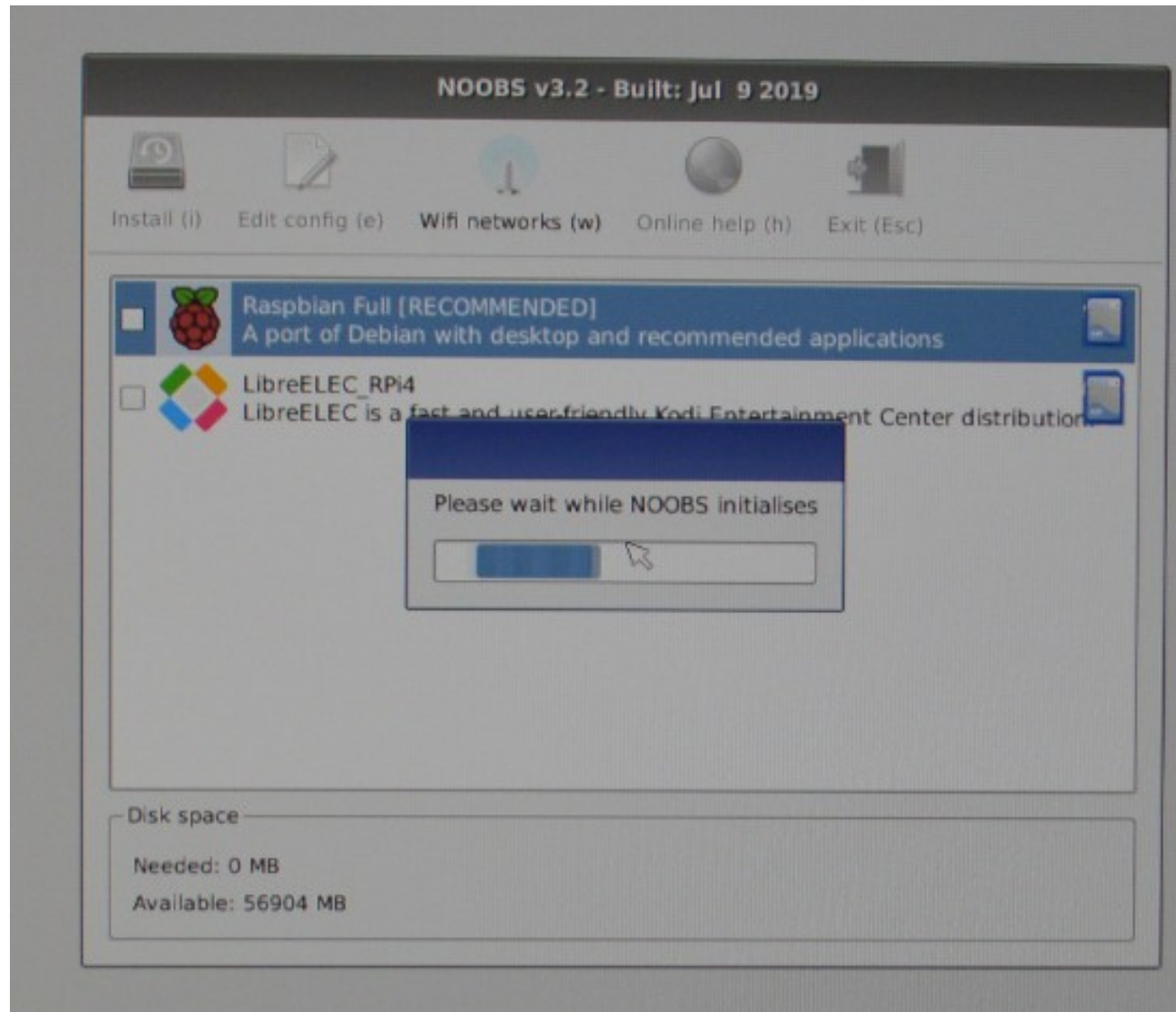
- Conectar el Raspberry y arranca con la siguiente pantalla:





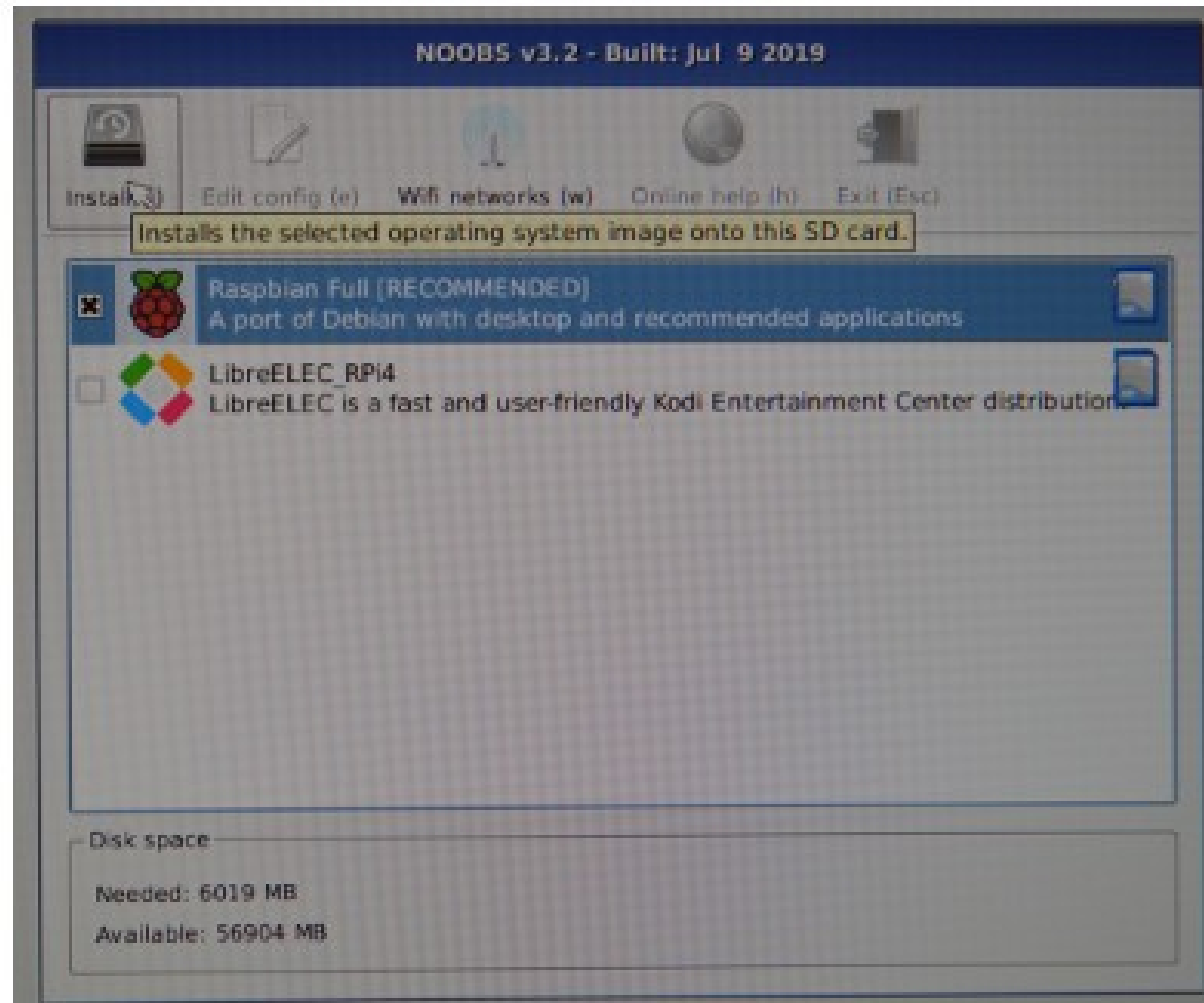
# Opciones

- Aparecen las opciones a instalar:



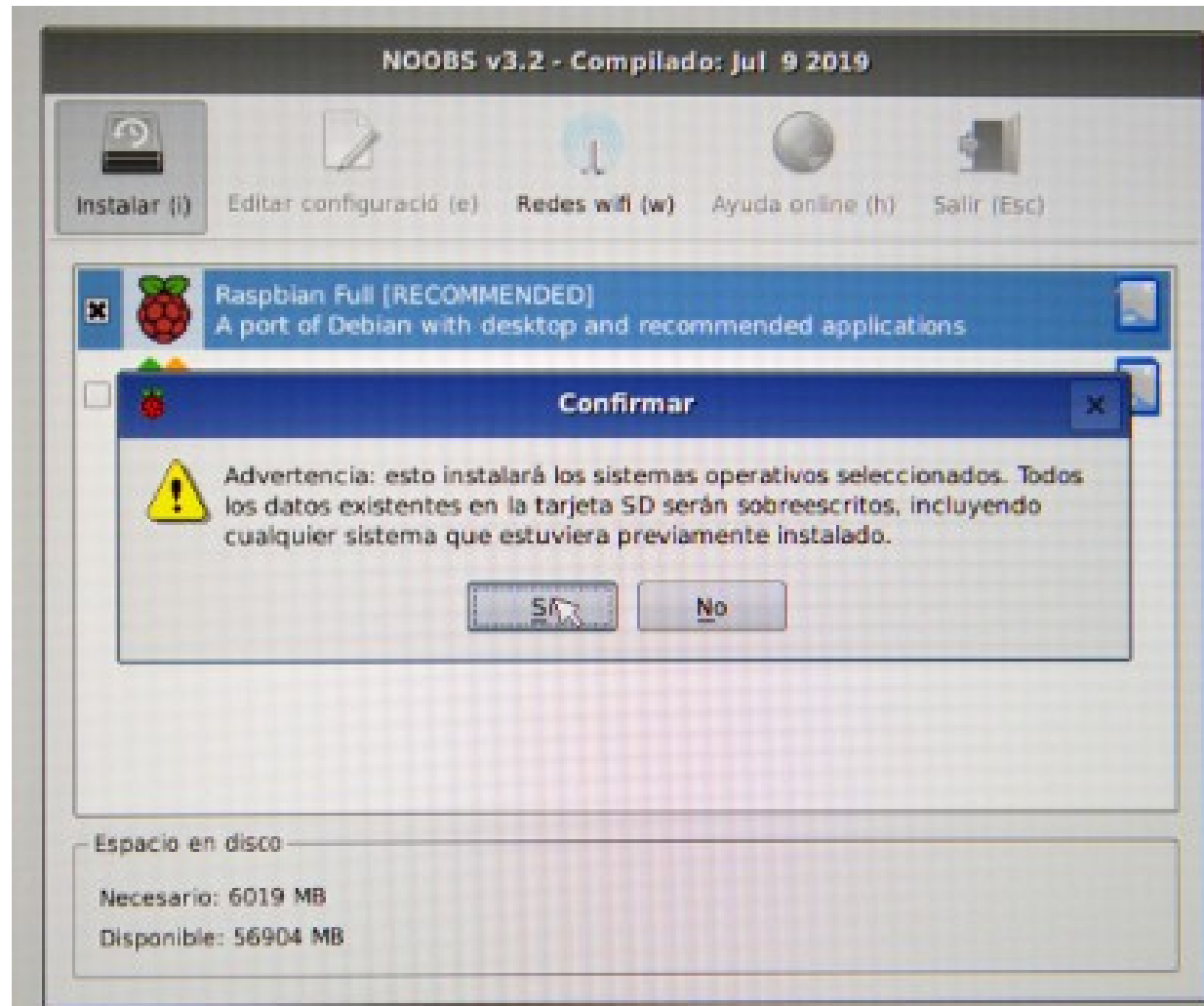
# Raspbian

- Se selecciona Raspbian como el sistema a instalar:



# Raspbian

- Se indica que se borrará todo el contenido de la memoria:



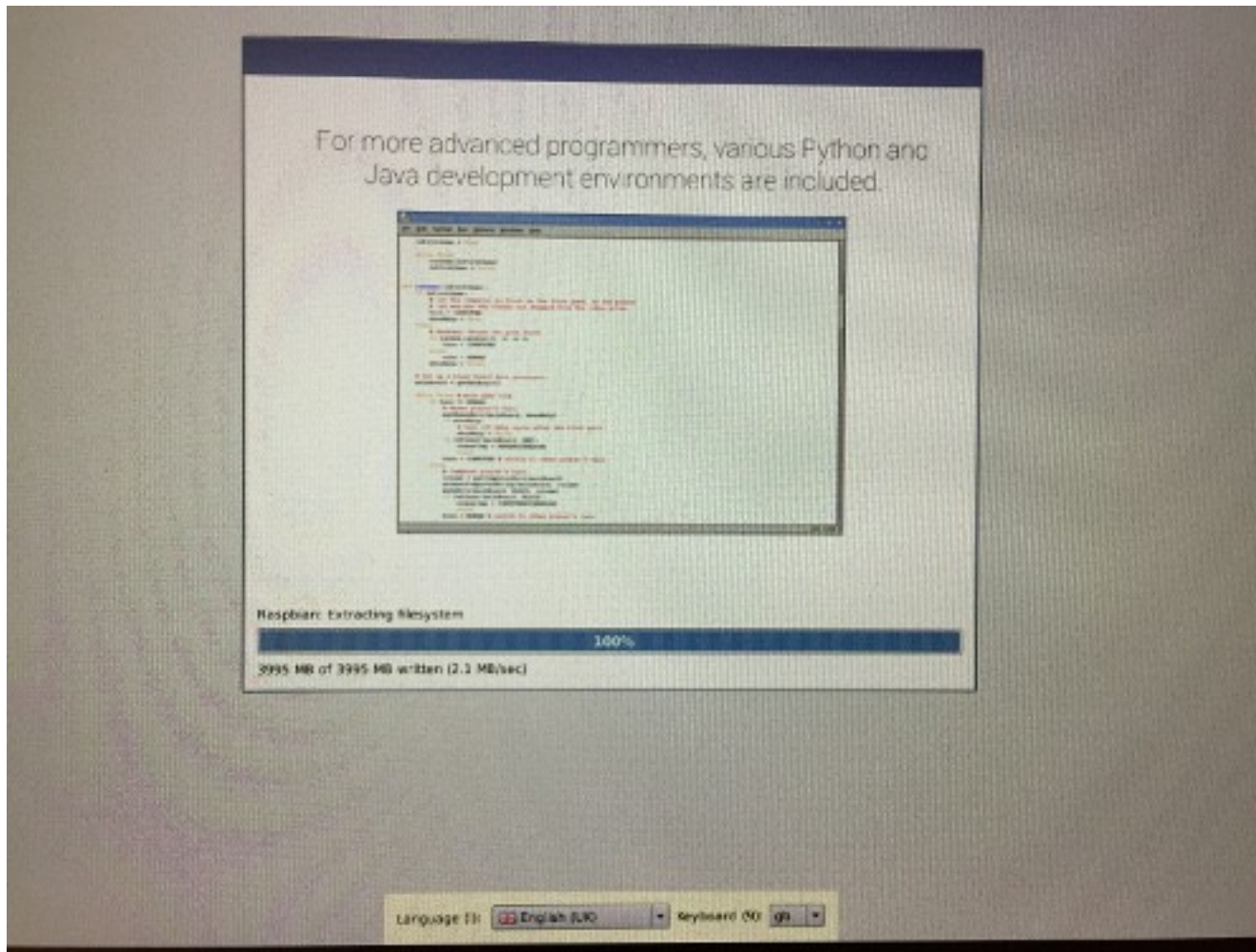
# Instalación

- Inicia el proceso de instalación (aproximadamente 20 minutos en total):



# Instalación

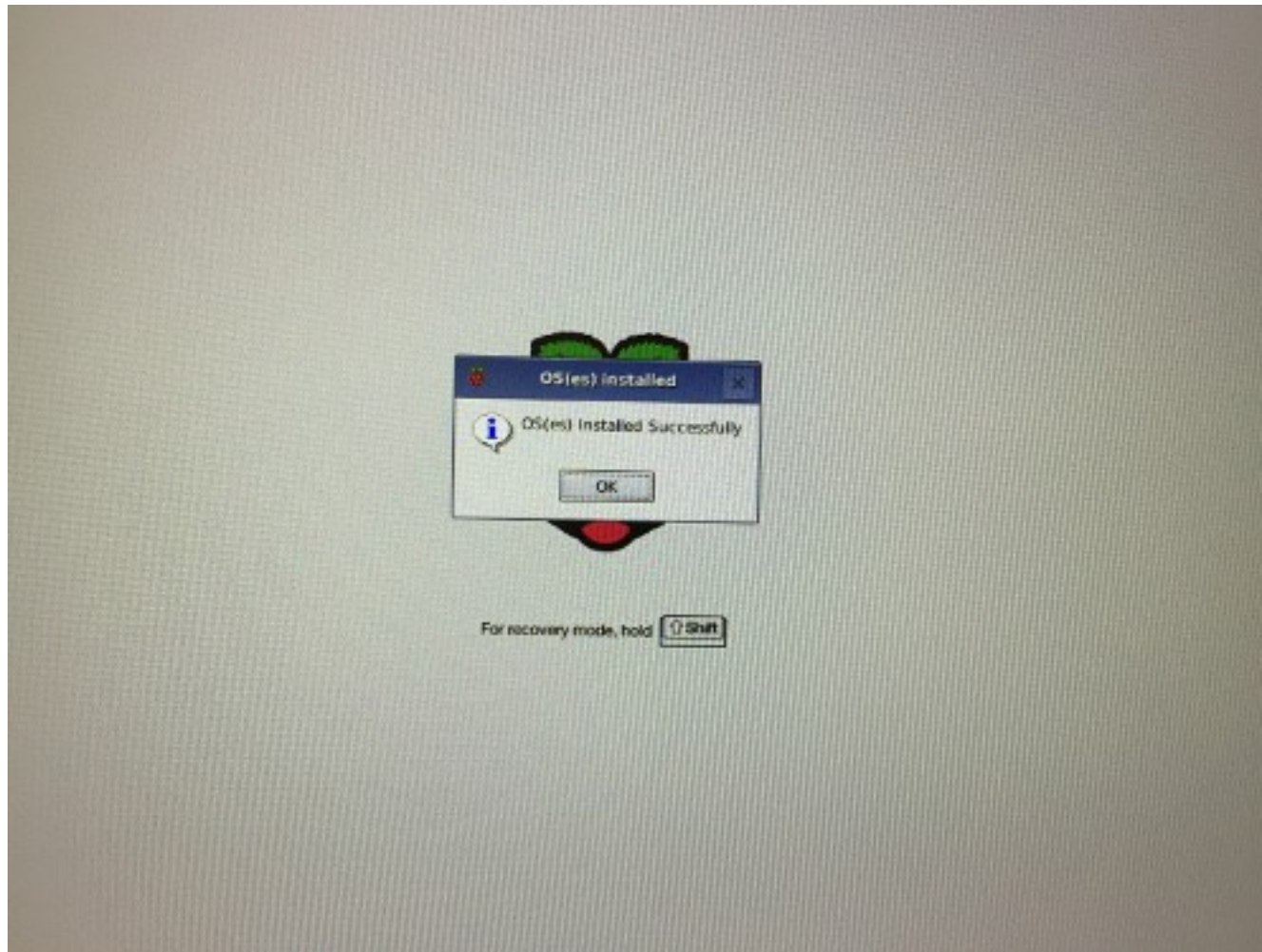
- Pantalla indicando el 100% de la instalación:





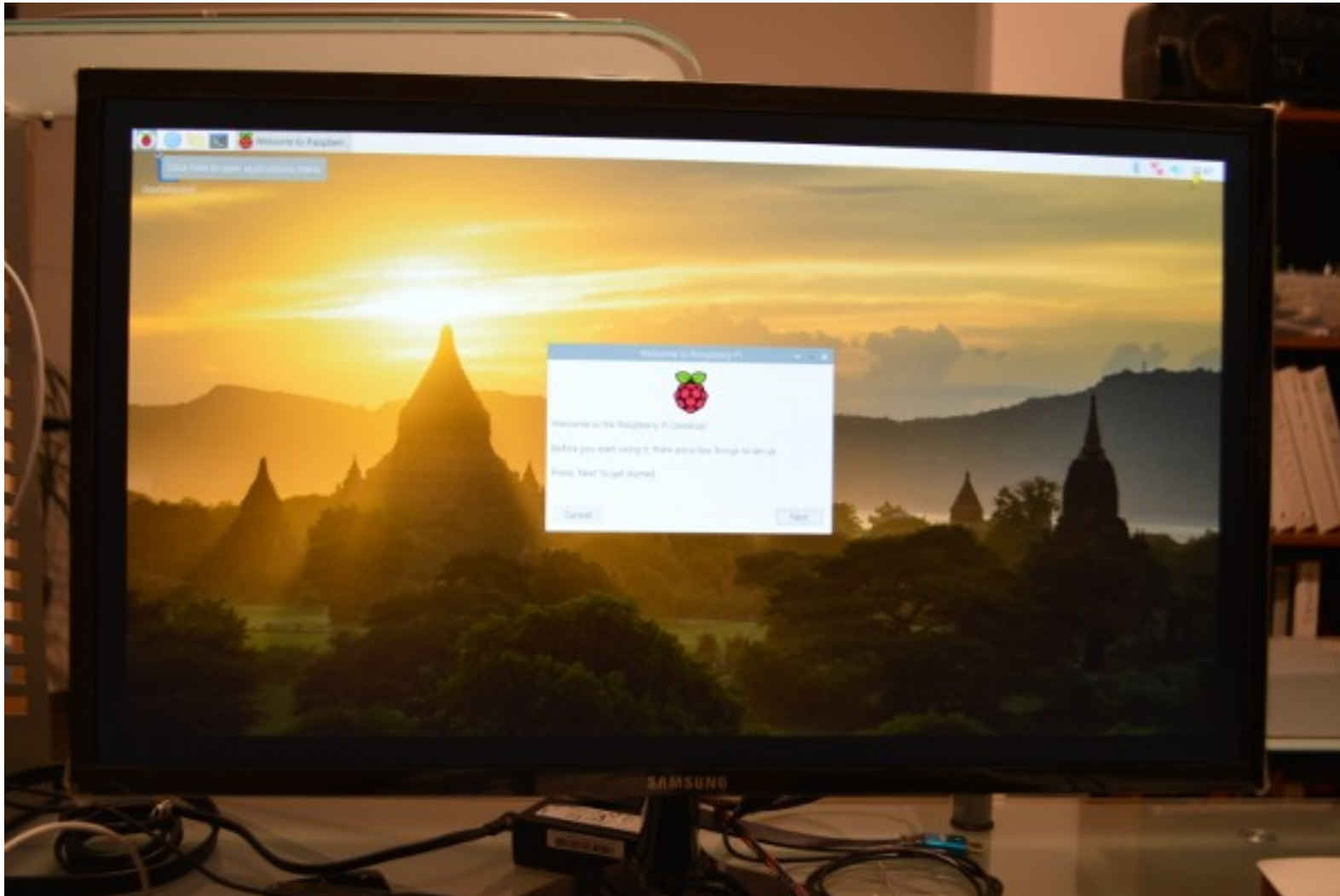
# Instalación

- **Pantalla de finalización de la instalación:**



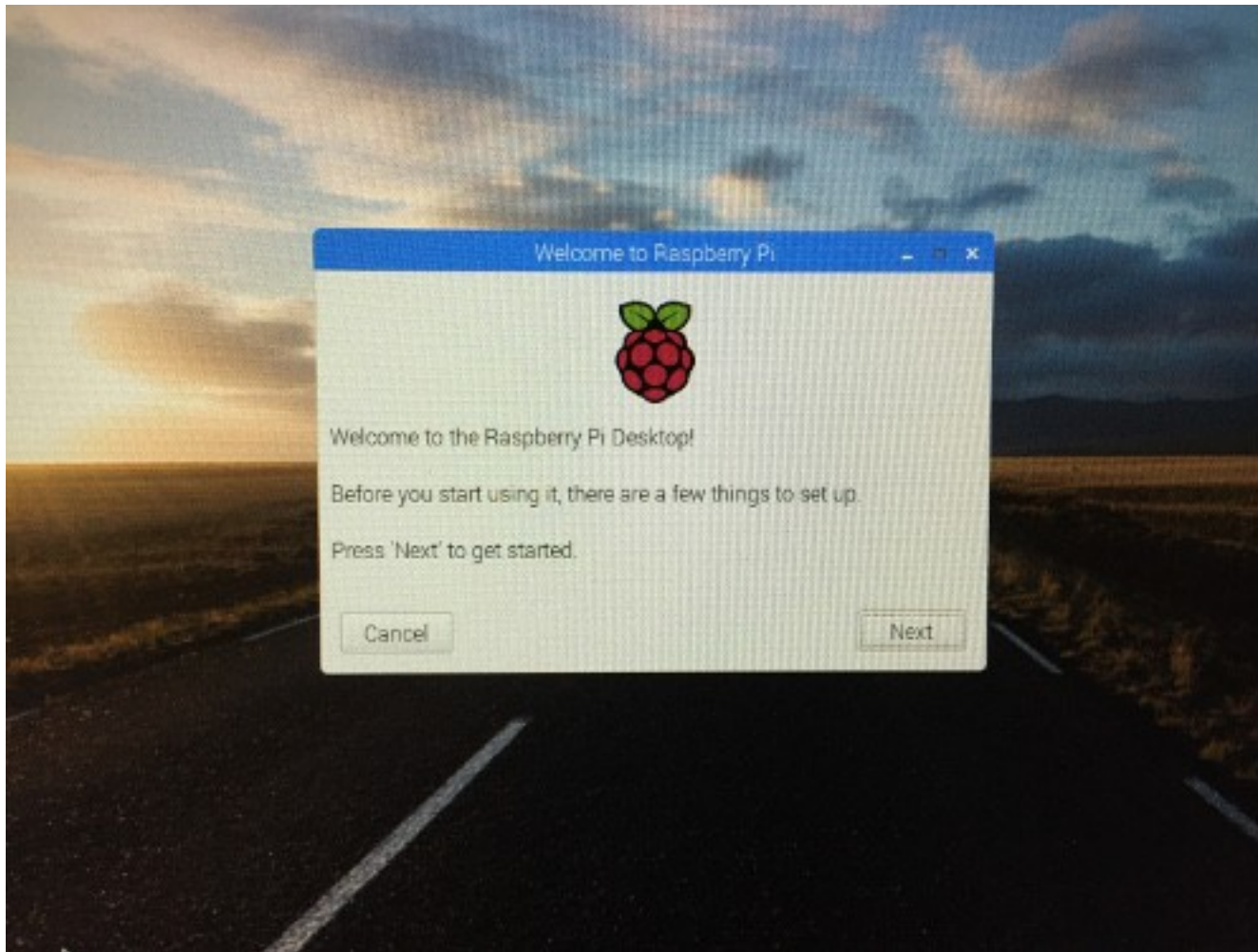
# Pantalla

- **Pantalla completa al terminar la instalación:**



# Configuración

- Ahora viene el proceso de configuración:





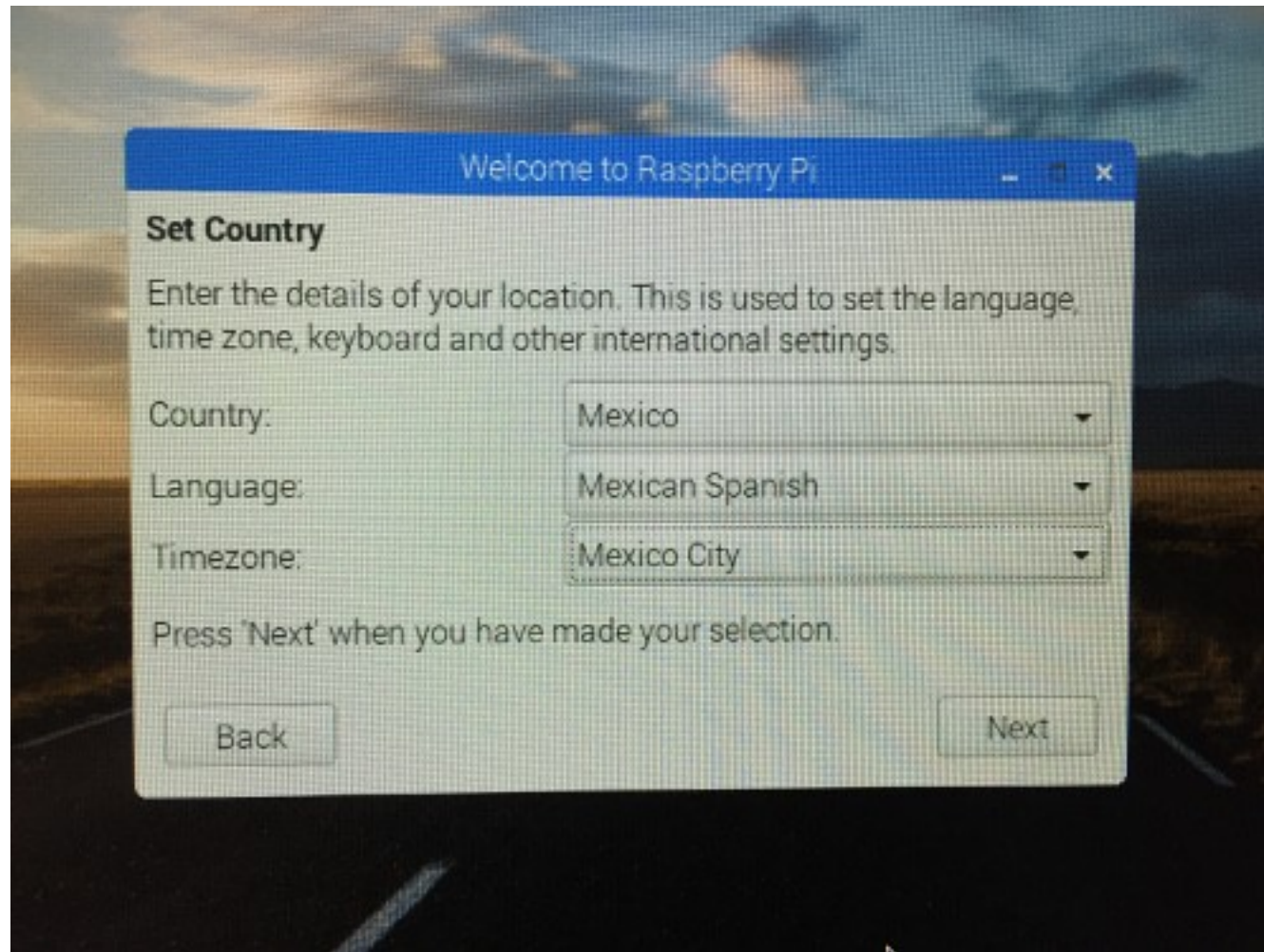
# Teclado

- **Seleccionar teclado:**



# País

- **Seleccionar país, lenguaje y zona horaria:**



# País

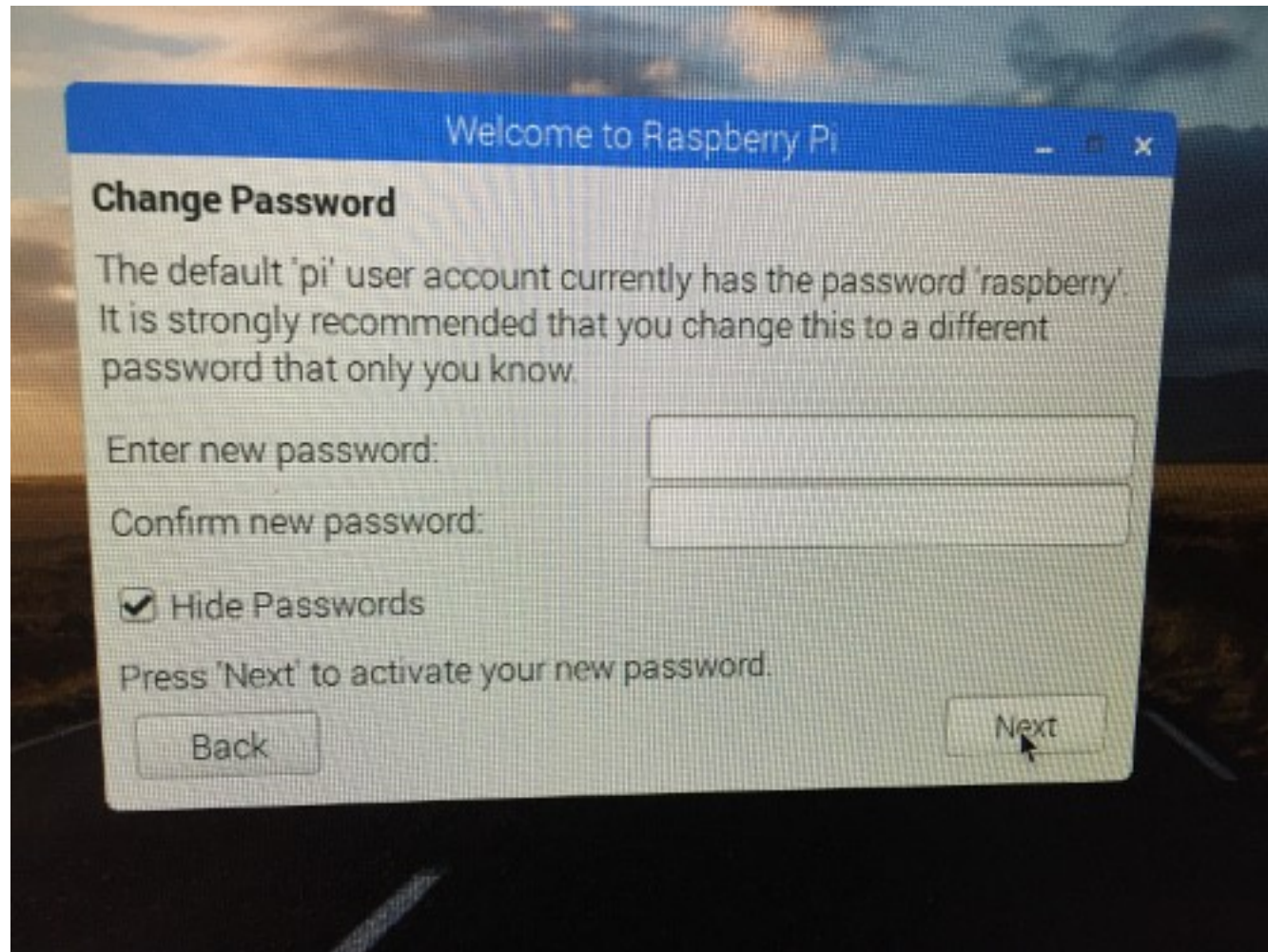
- Actualizando los datos:





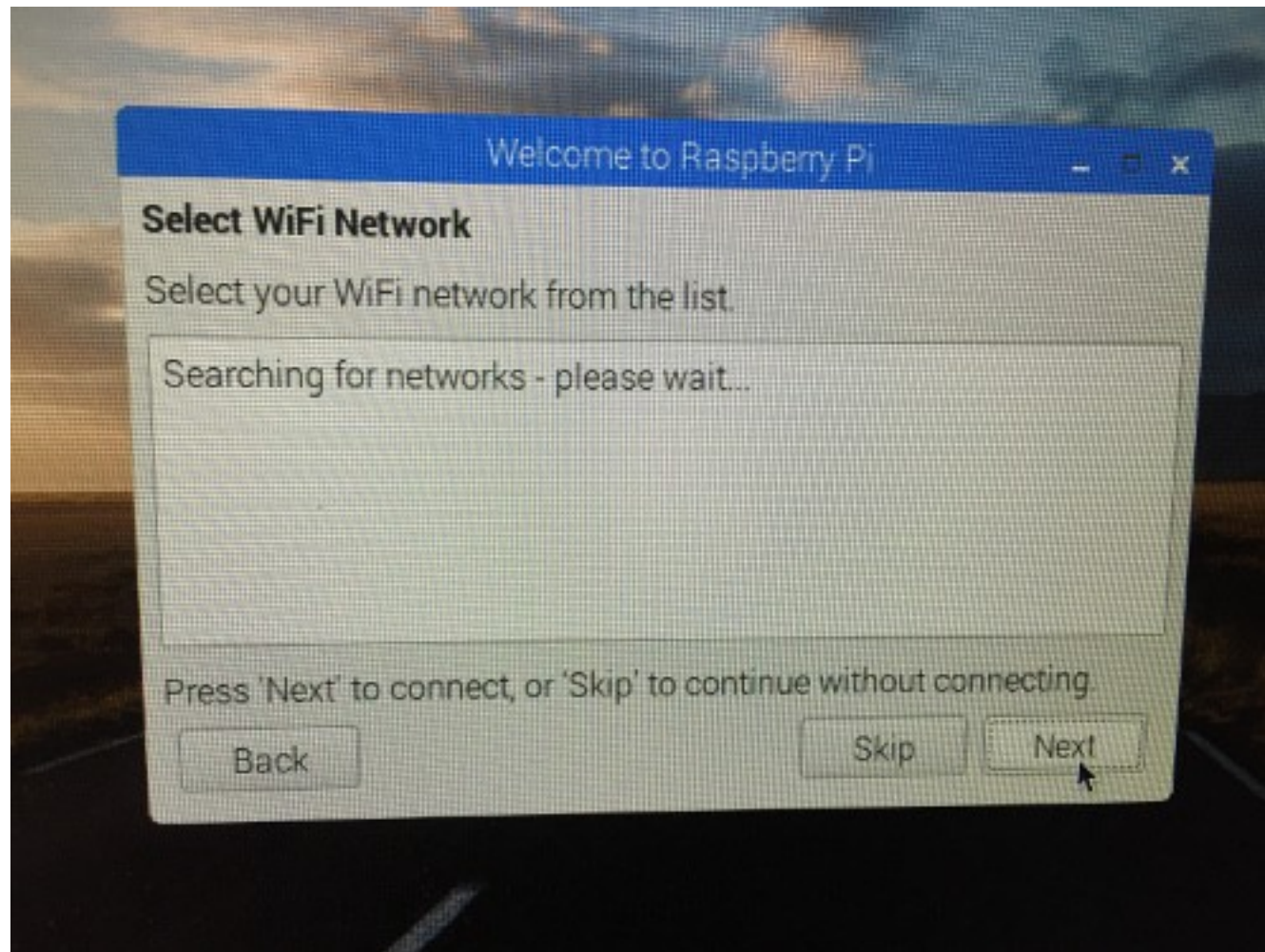
# Clave

- **Pregunta la clave de acceso:**



# Internet

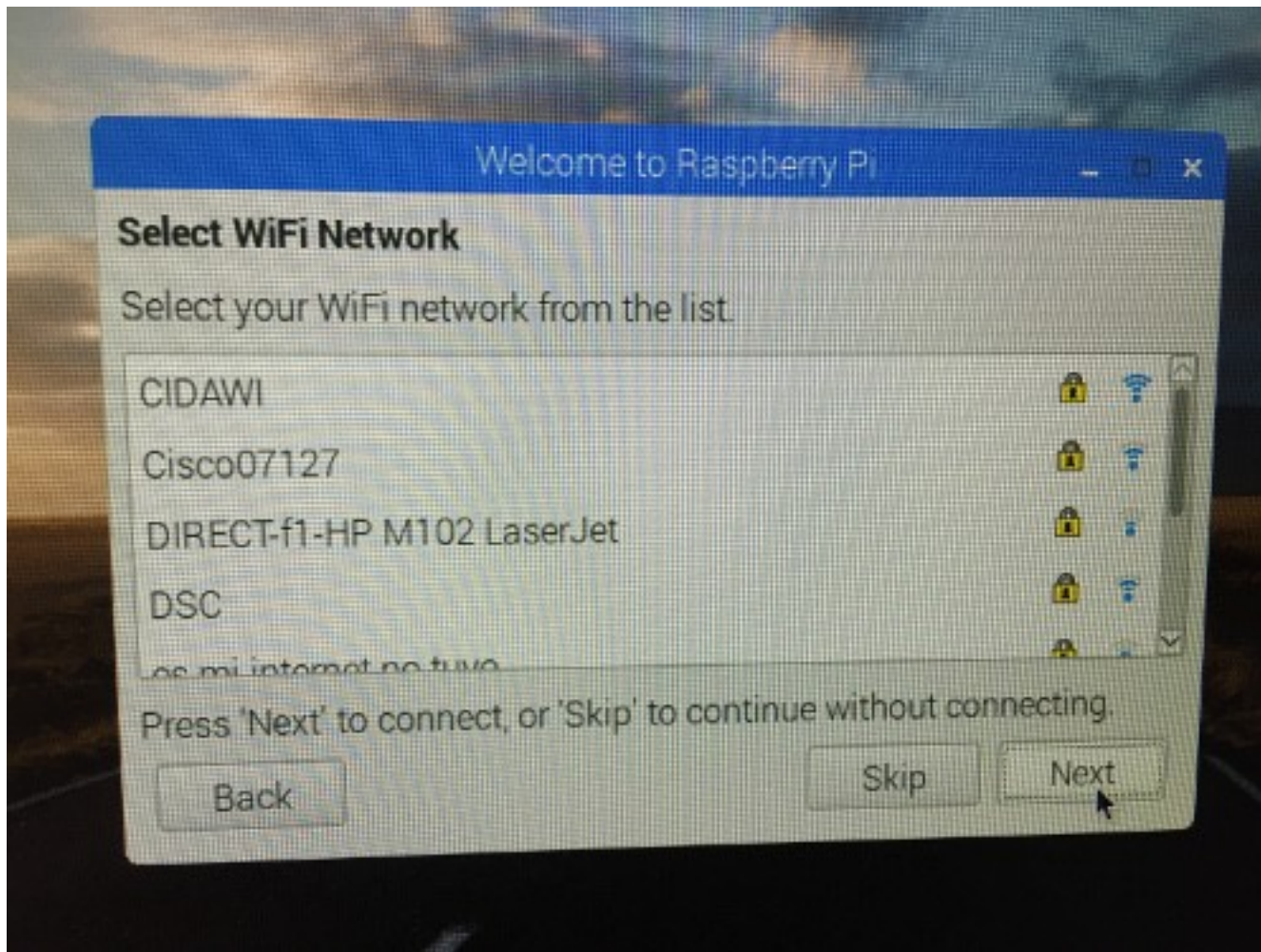
- **Buscando y configurando redes para acceso a Internet:**





# Internet

- Redes encontradas:



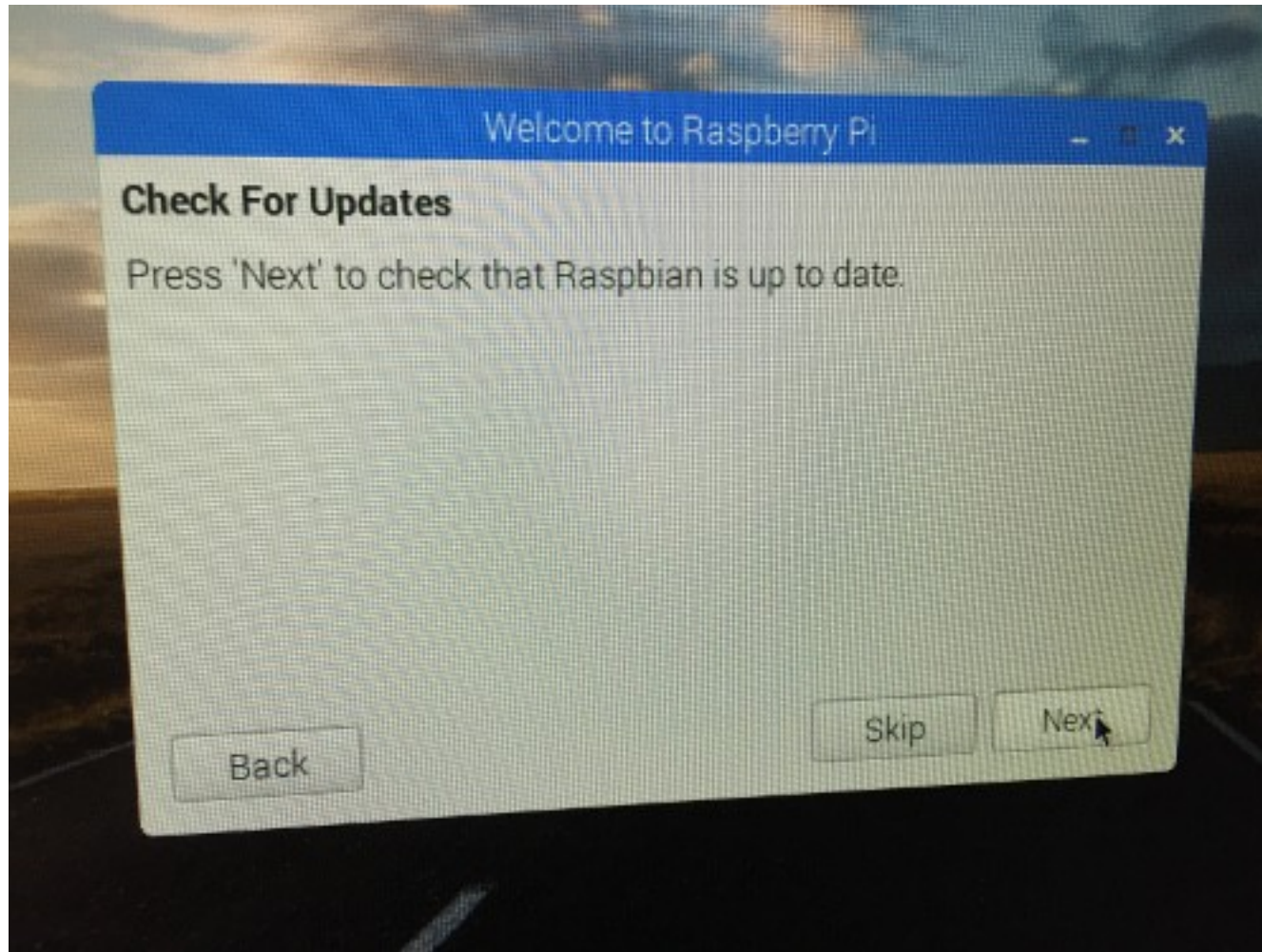
# Internet

- **Clave para acceder la red:**



# Actualización

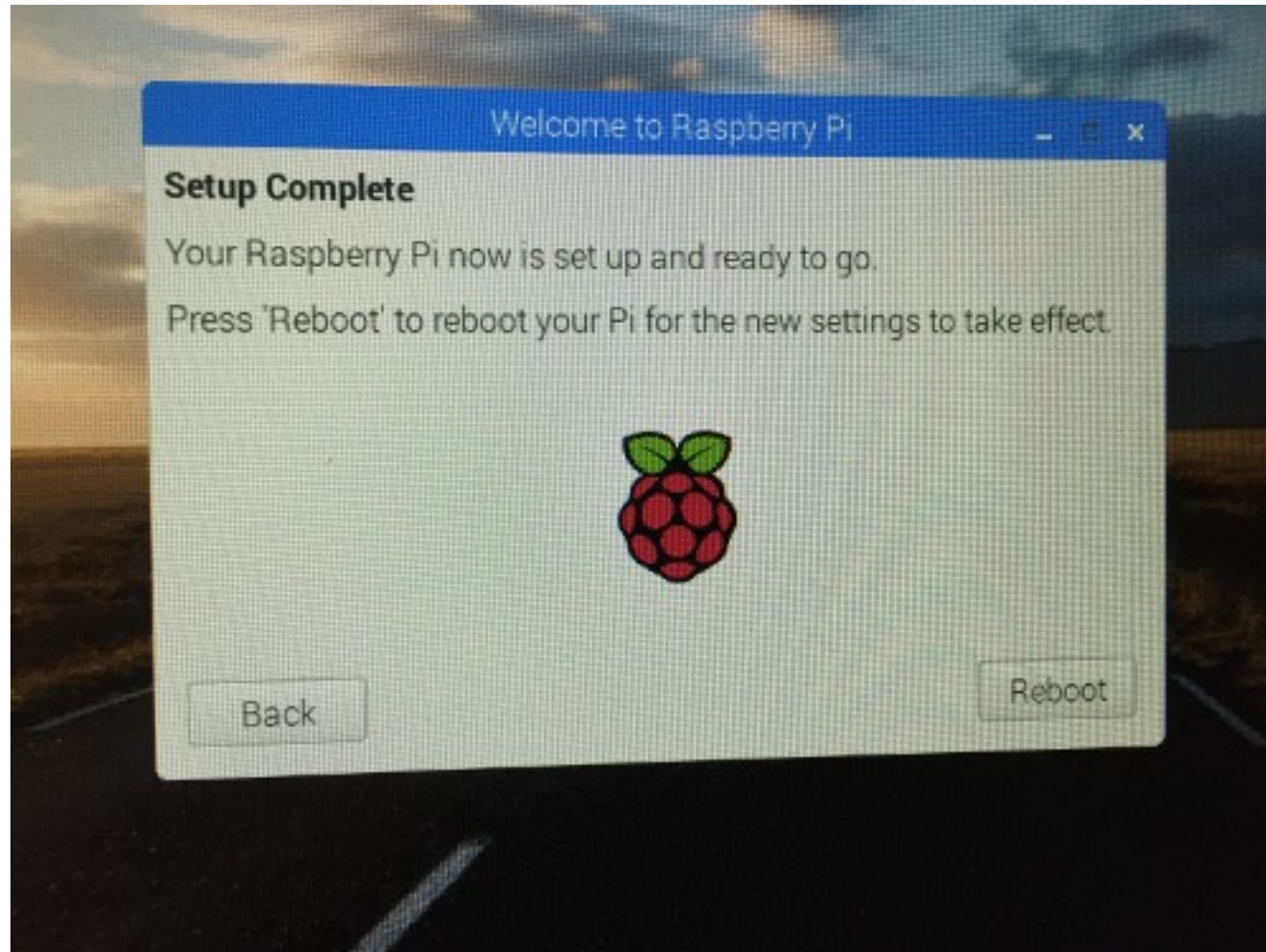
- **Buscar actualización de paquetes:**





# Finalizar

- Terminando la configuración:



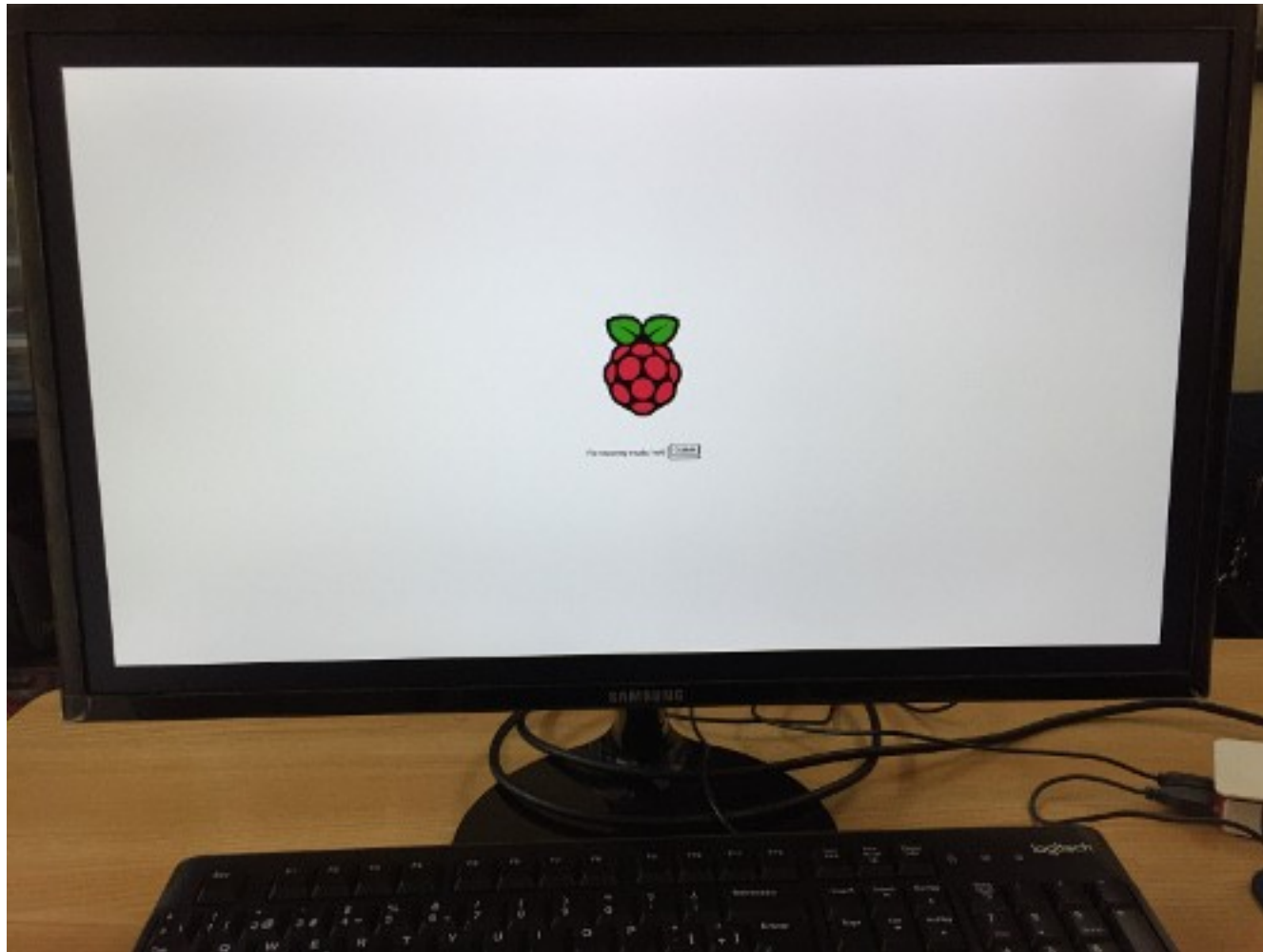
# Re-Inicio

- **Pantalla al volver a arrancar:**



# Re-Inicio

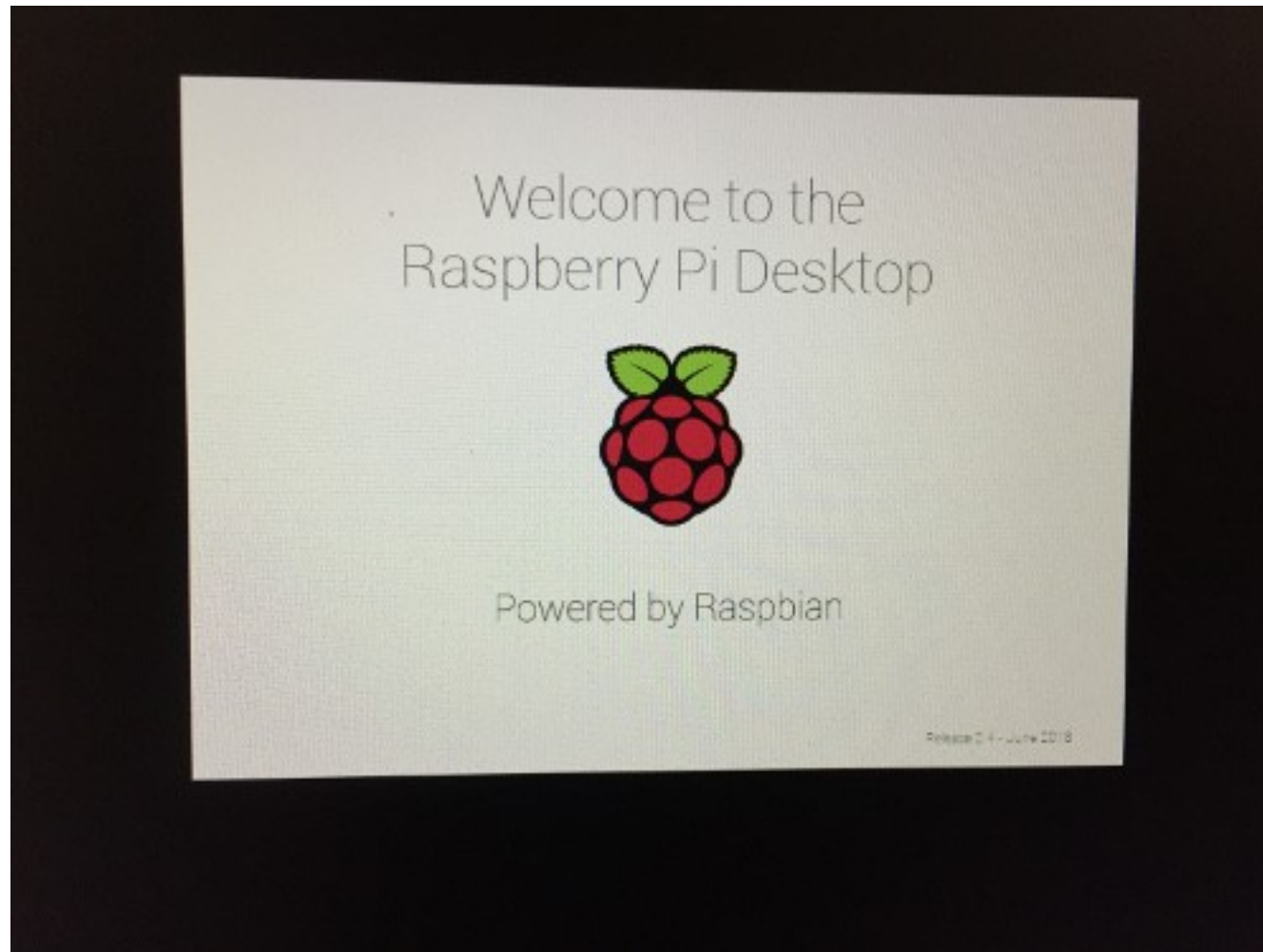
- Pantalla al volver a arrancar:





# Pantalla inicial

- **Pantalla de bienvenida al sistema:**





# Escritorio

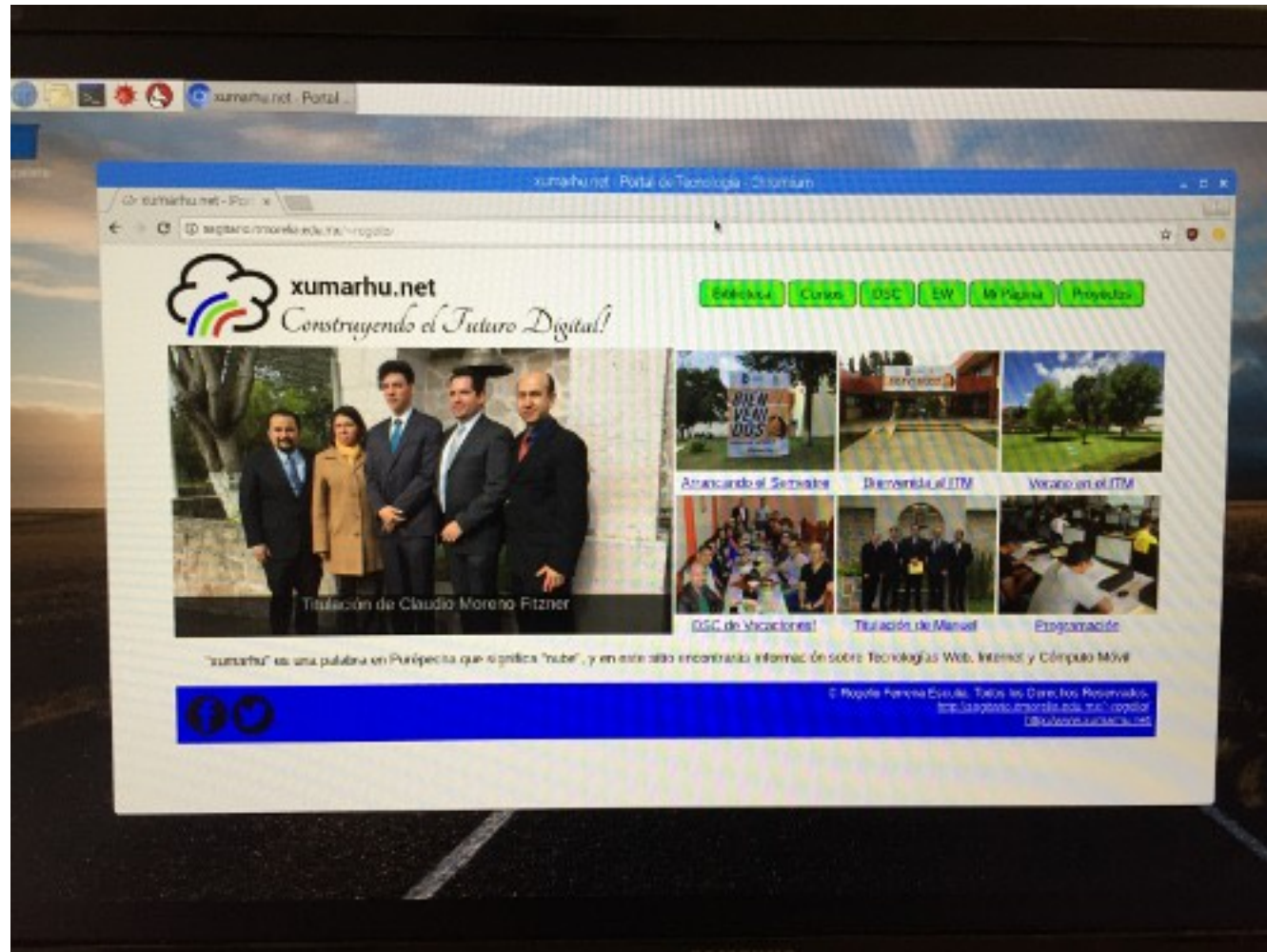
- **Pantalla del escritorio completa al arranque:**





# Navegador

- Navegador Chromium en funcionamiento:





# ***Rogelio Ferreira Escutia***

***Instituto Tecnológico de Morelia  
Departamento de Sistemas y Computación***

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                      http://www.xumarhu.net/***

***Twitter:           http://twitter.com/rogeplus***

***Facebook:       http://www.facebook.com/groups/xumarhu.net/***