

KEYBOARD



MONITOR



MOUSE

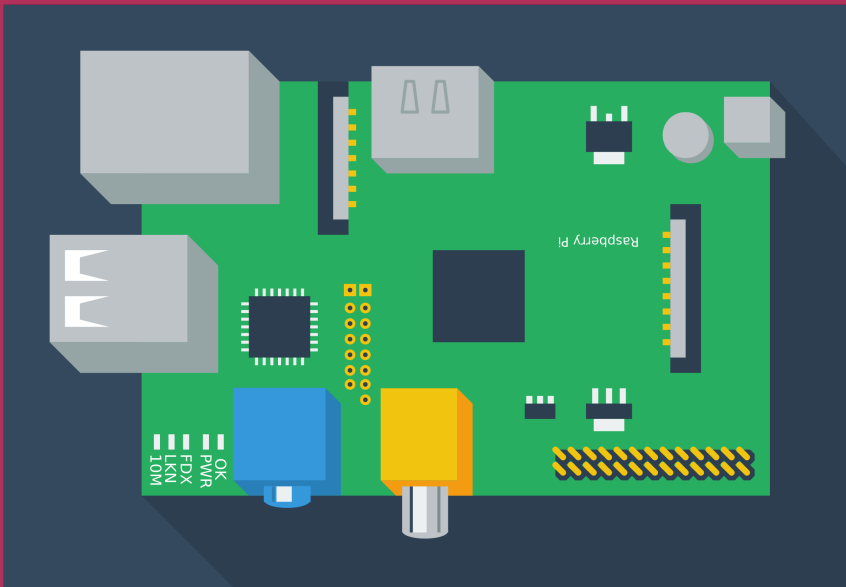
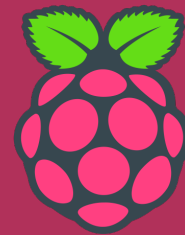


Headless Pi OS

Installation &

Setup

AUG 2021



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scriptworkz ent

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 1. Download Raspberry Pi OS

Step 2. Burn the Raspberry Pi OS image to the SD card: i. Balena Etcher; ii. Raspberry Pi Imager

Step 3. Enable ssh to allow remote login

Mac instructions (enable ssh)

Open up a terminal window and run this command:

touch /Volumes/boot/ssh

Windows instructions (ssh)

Run ***Notepad***

In a new file put in one space and nothing more

Click ***File / Save As ...***

Be sure to set ***Save as type*** to ***All Files*** (so the file is NOT saved with a .txt extension)

Call the file ***ssh*** and save it

Close the file

If you are comfortable with the Windows command line you could try this instead (untested!):

Open up a command line

Switch to the drive and root where ***boot*** is located:

Type: type ***NUL >> ssh***

Verify that file ***ssh*** was created

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 4. Add your WiFi network info

Create a file in the root of **boot** called: ***wpa_supplicant.conf*** (instructions below). Then paste the following into it (adjusting for your [ISO 3166 alpha-2 country code](#), network name and network password):

```
country=MY  
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev  
update_config=1  
network={  
    ssid="NETWORK-NAME"  
    psk="NETWORK-PASSWORD"  
}
```

Mac instructions (wifi settings)

Create a new empty file that will hold network info:

touch /Volumes/boot/wpa_supplicant.conf

Edit the file that you just created and paste the text above into it (adjusting for the name of your country code, network name and network password):

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 4. Add your WiFi network info (cont)

Windows instructions (wifi settings)

Run **Notepad**

Paste in the contents above (adjusting for the name of your country code, network name and network password)

Click ***File / Save As ...***

Be sure to set ***Save as type*** to ***All Files*** (so the file is NOT saved with a .txt extension)

Call the file ***wpa_supplicant.conf*** and save it

Close the file

Step 5. Eject the micro SD card

Step 6. Boot the Raspberry Pi from the micro SD card

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 7. Login remotely over WiFi

Mac instructions (login over wifi)

Open up a terminal window

Run the following commands:

```
ssh-keygen -R raspberrypi.local
```

```
ssh pi@raspberrypi.local
```

Don't worry if you get a host not found error for the first command - the idea is to clear out any previous references to raspberrypi.local

If the pi won't respond, press Ctrl-C and try the last command again

If prompted with a warning just hit enter to accept the default (**Yes**)

Type in the password -- by default this is ***raspberry***

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 7. Login remotely over WiFi (cont)

Windows instructions (login over wifi)

Install Bonjour

You can find Raspberry Pi's on your network using their hostname followed by .local (example: raspberrypi.local). But to do that in Windows you have to install the Bonjour service first.

If you have iTunes installed on Windows you probably don't have to do this. But if you don't, browse to:

[Download Bonjour Print Services for Windows v2.0.2](#)

and run the installer.

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

Step 7. Login remotely over WiFi (cont)

Install Putty

If you already have Putty installed, skip to the next section.

Browse to:

<https://www.putty.org>

Download the 64-bit MSI (Windows Installer)

Open it to run the installer (if asked for permission, click Yes)

Select: ***Add shortcut to PuTTY on the Desktop***

Login over WiFi using Putty

This part assumes that ***ssh*** is enabled for your image and that the default user is ***pi*** with a password of ***raspberry***.

Launch Putty

Set the ***Host Name (or IP address)*** field to ***raspberrypi.local***

By default the ***Port*** should be set to ***22*** and ***Connection type*** should be set to ***SSH***

Click ***Open***

If you see a Security Alert select Yes

A new terminal window should appear prompting you for a user name

The default user name is: ***pi***

The default password is: ***raspberry***

1. Headless Raspberry Pi 4 SSH WiFi Setup (Mac + Win)

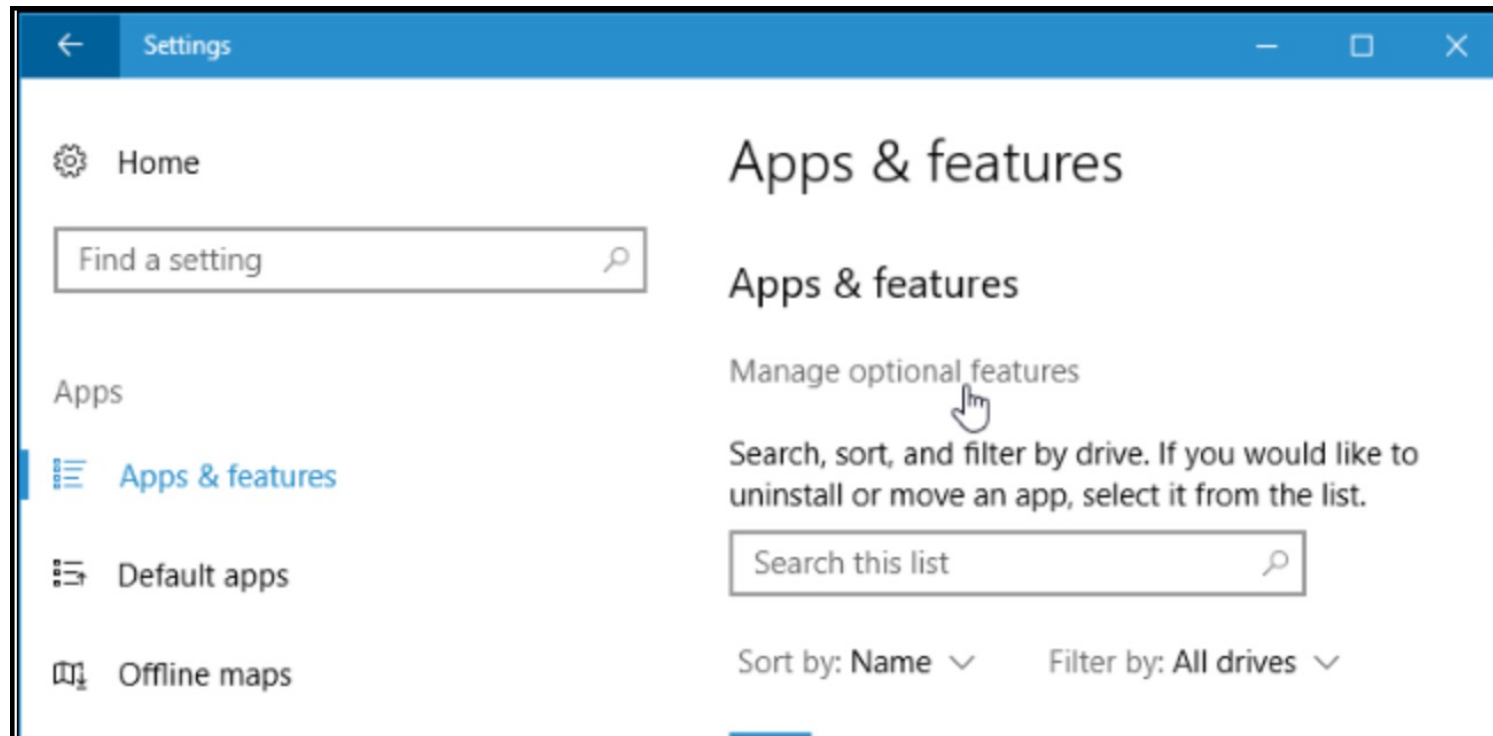
Step 8. Get the latest updates

Once connected over WiFi, the next thing you should do is run some updates:

sudo apt-get update -y

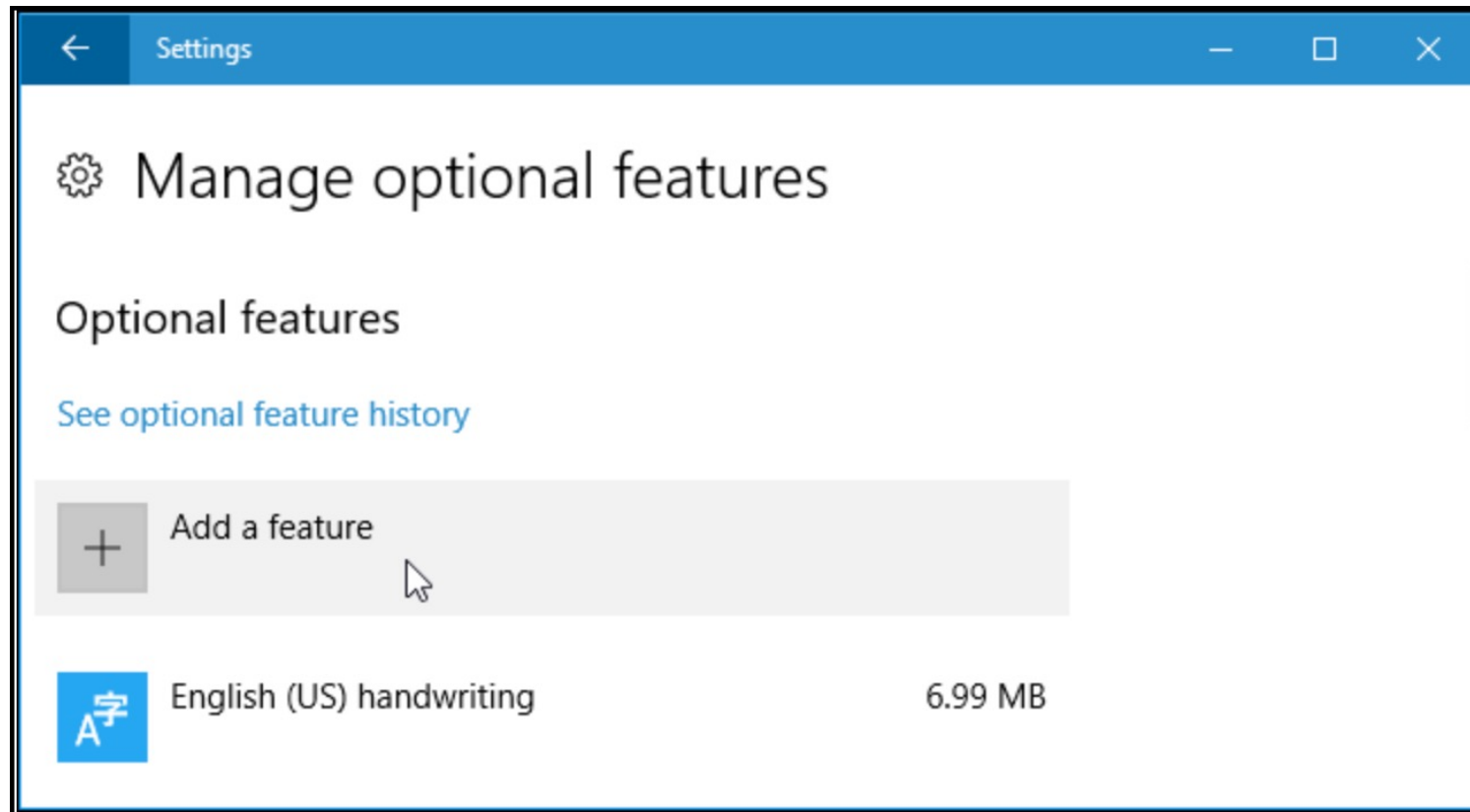
sudo apt-get upgrade -y

2. How to Enable and Use Windows 10's New Built-in SSH Commands

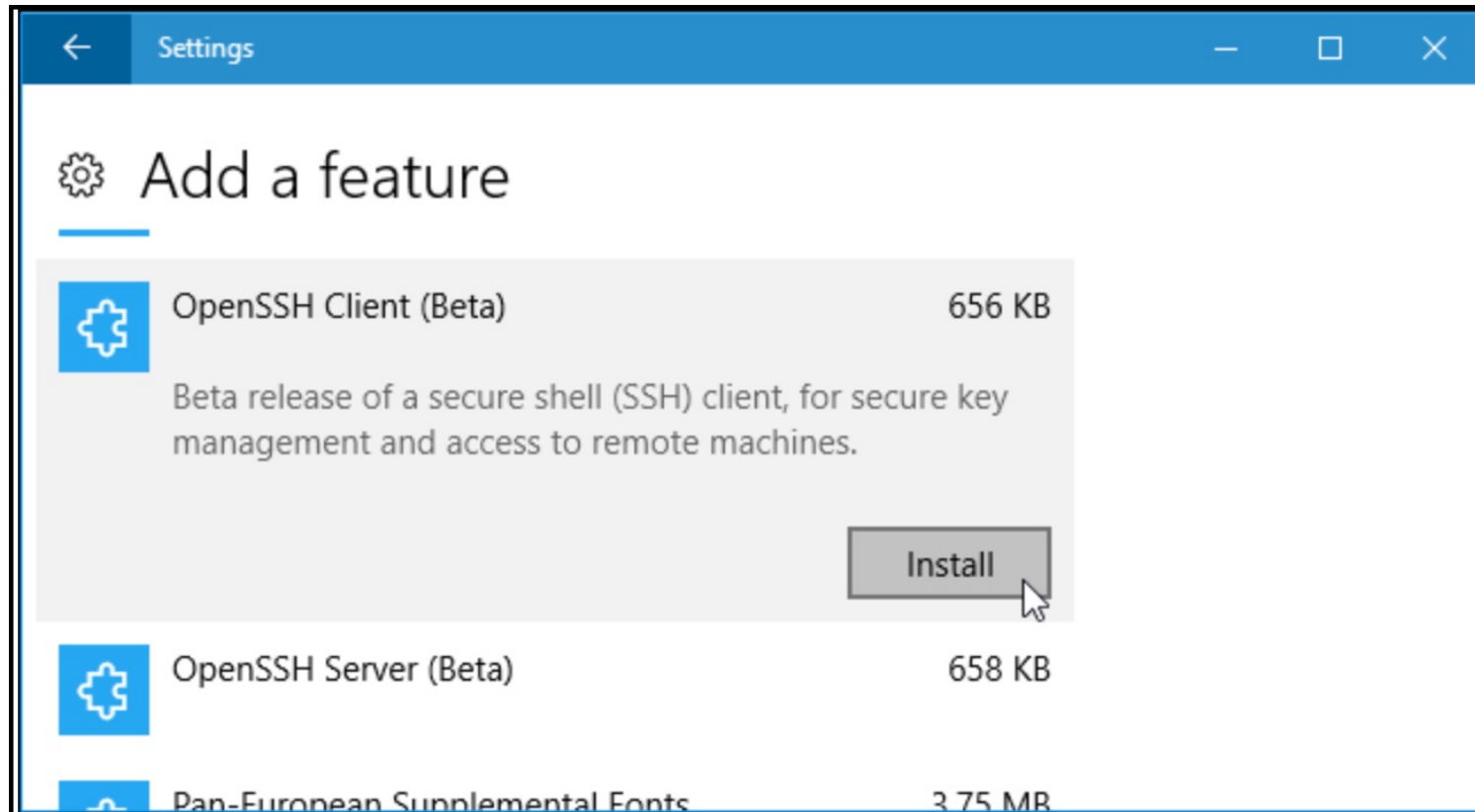


***On Windows, open the Network and Sharing Center
(Control Panel > Network and Sharing Center > View network
connections).

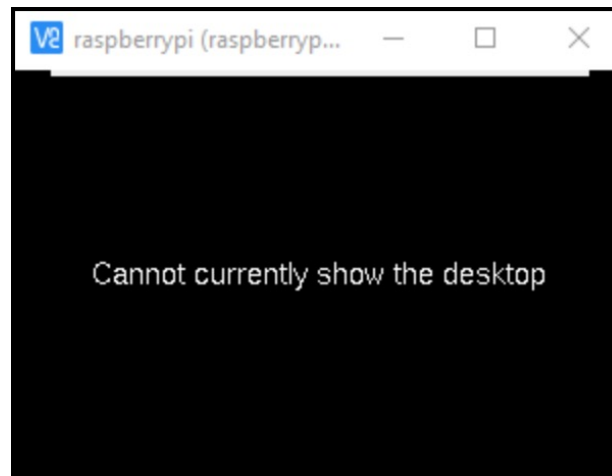
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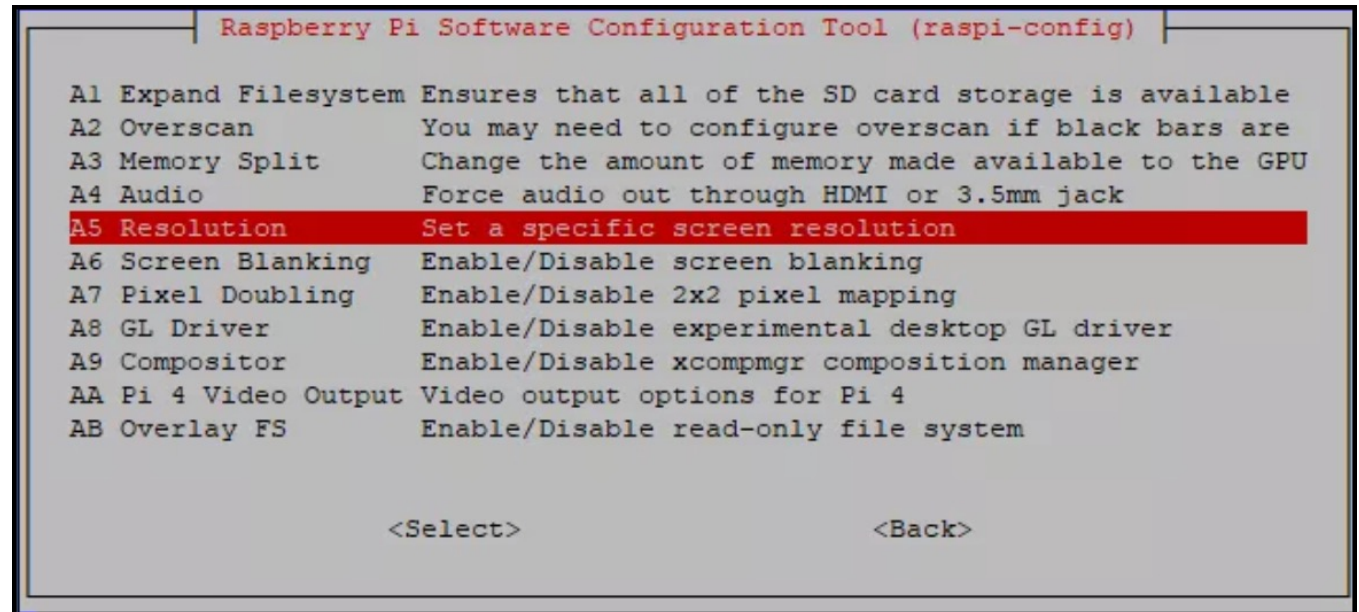
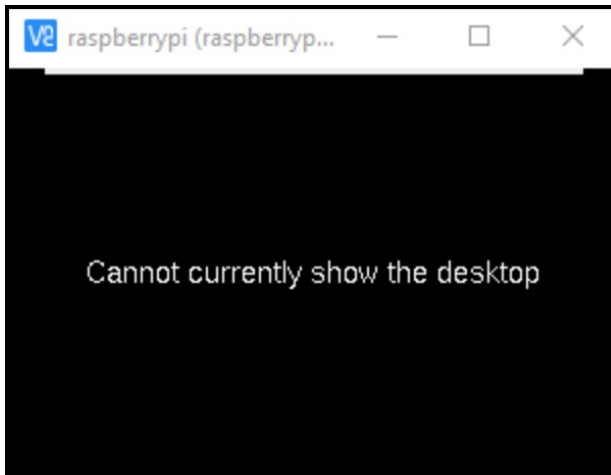


3. How to Fix Raspberry Pi's 'Cannot Currently Show the Desktop' Error



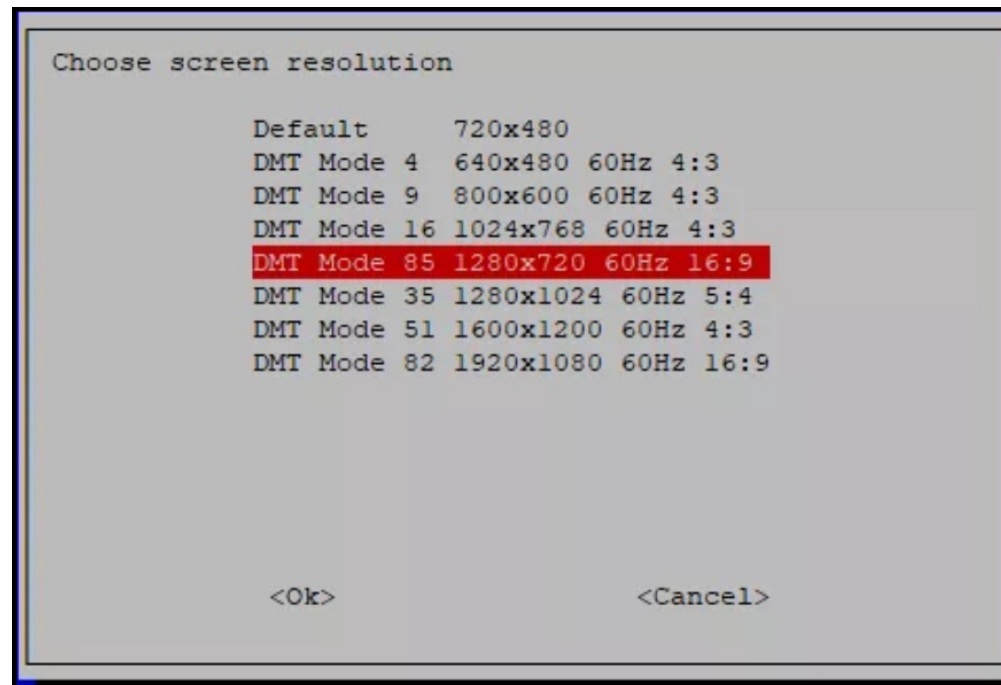
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>>sudo raspi-config



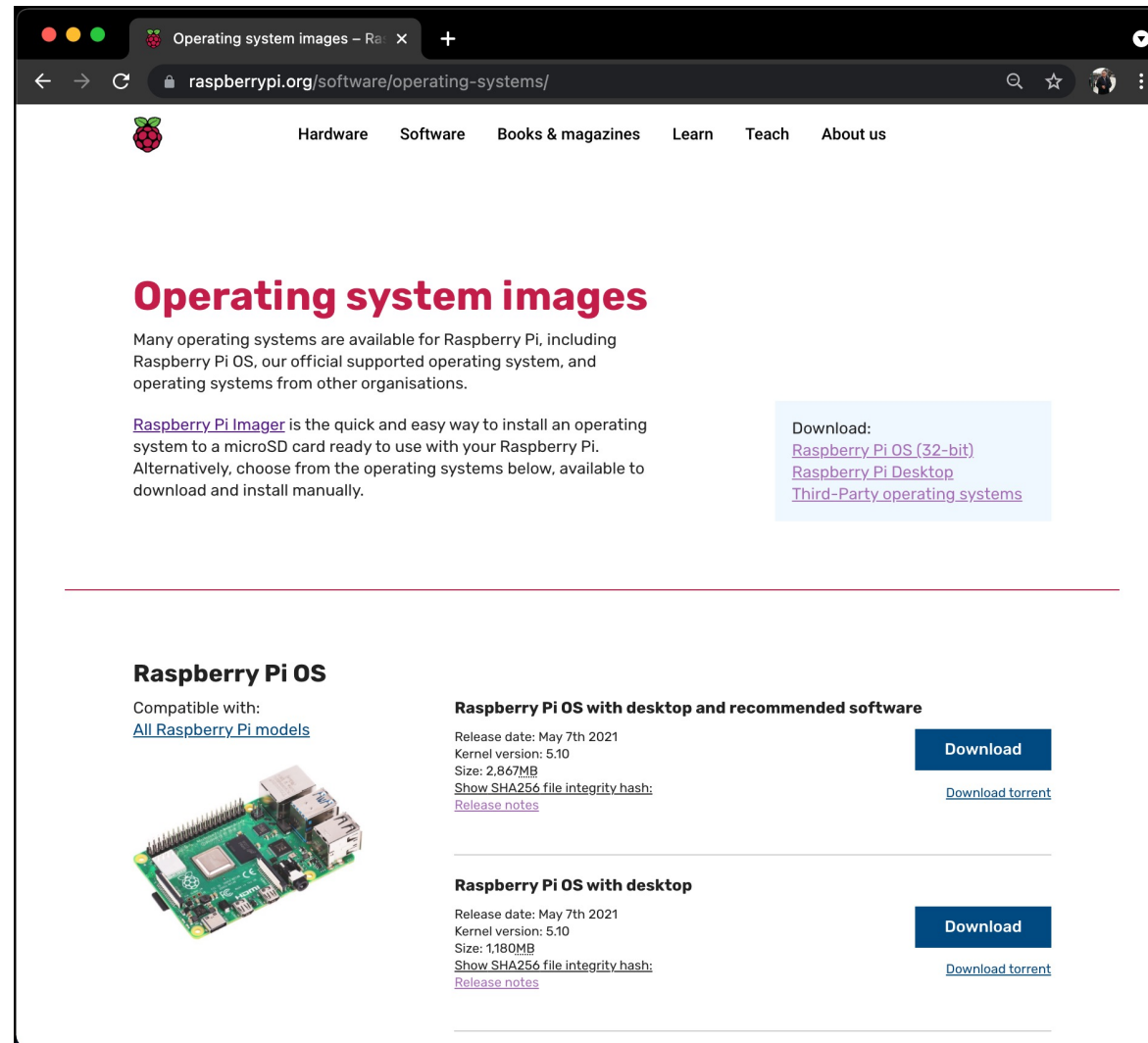
3. How to Fix Raspberry Pi's 'Cannot Currently Show the Desktop' Error

Choose a resolution. We recommend at least 1280 x 720, but some users report that choosing the highest possible (usually 1920 x 1080) is what they needed to do.



You'll need to reboot your Raspberry Pi for this change to take effect.

4. Which OS to Choose?



The screenshot shows the Raspberry Pi website's 'Operating system images' page. The browser address bar shows 'raspberrypi.org/software/operating-systems/'. The page has a navigation bar with links: Hardware, Software, Books & magazines, Learn, Teach, and About us. The main heading is 'Operating system images' in a large, bold, red font. Below it, a paragraph states that many operating systems are available for Raspberry Pi, including the official Raspberry Pi OS. A link to 'Raspberry Pi Imager' is provided as the recommended installation method. To the right, a light blue box contains download links for 'Raspberry Pi OS (32-bit)', 'Raspberry Pi Desktop', and 'Third-Party operating systems'. A horizontal line separates this section from the 'Raspberry Pi OS' section below. This section features a photo of a Raspberry Pi 4 board. It lists the OS as compatible with all Raspberry Pi models. Two download options are presented: 'Raspberry Pi OS with desktop and recommended software' and 'Raspberry Pi OS with desktop'. Each option includes release and kernel dates, file size, and links to SHA256 hashes, release notes, and download buttons (both 'Download' and 'Download torrent').

Operating system images


Many operating systems are available for Raspberry Pi, including Raspberry Pi OS, our official supported operating system, and operating systems from other organisations.

[Raspberry Pi Imager](#) is the quick and easy way to install an operating system to a microSD card ready to use with your Raspberry Pi. Alternatively, choose from the operating systems below, available to download and install manually.

Download:
[Raspberry Pi OS \(32-bit\)](#)
[Raspberry Pi Desktop](#)
[Third-Party operating systems](#)

Raspberry Pi OS

Compatible with:
[All Raspberry Pi models](#)



Raspberry Pi OS with desktop and recommended software

Release date: May 7th 2021
Kernel version: 5.10
Size: 2,867MB
[Show SHA256 file integrity hash:](#)
[Release notes](#)

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[Download torrent](#)

Raspberry Pi OS with desktop

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4. Which OS to Choose?

Raspberry Pi OS with desktop

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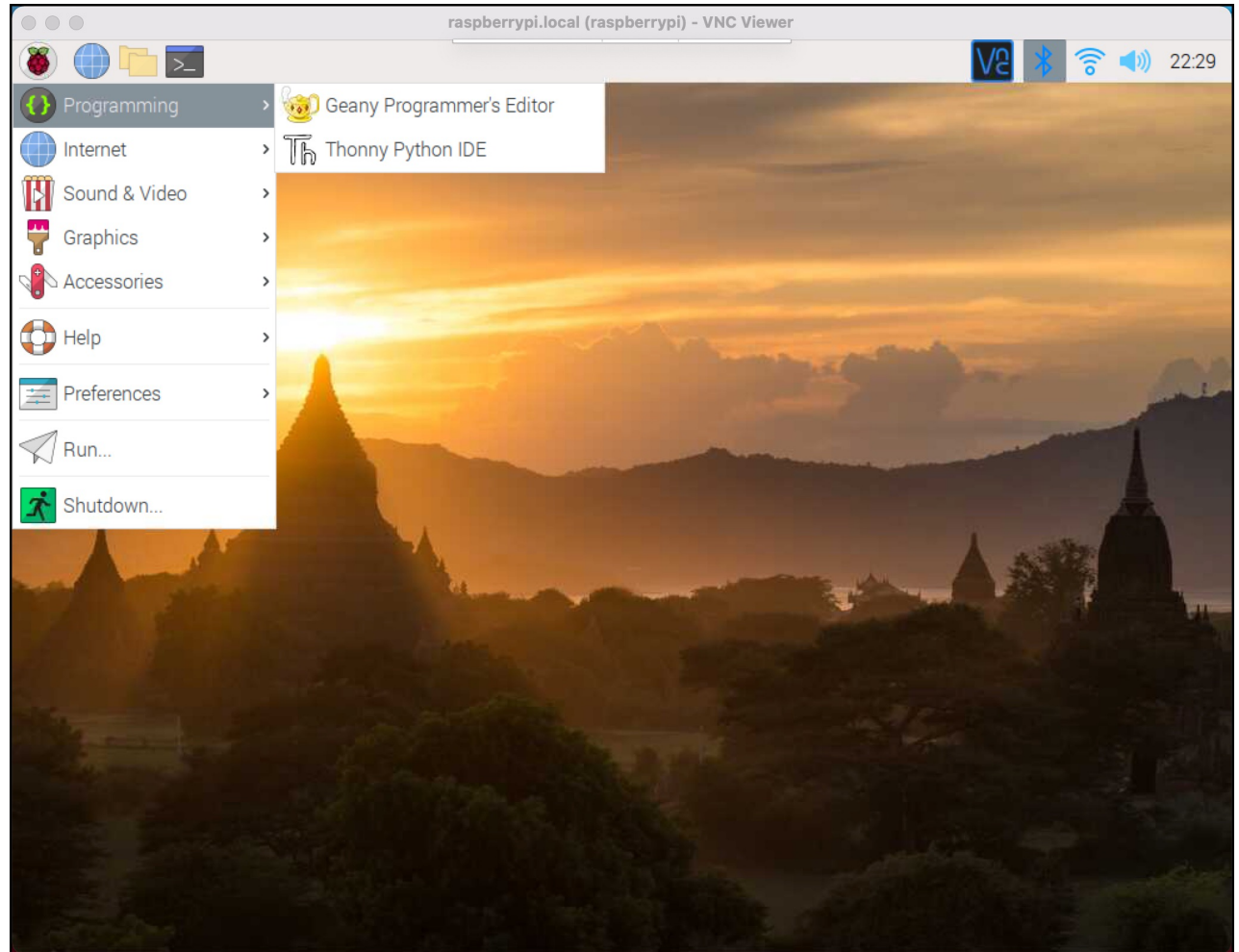
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4. Which OS to Choose?

Raspberry Pi OS with desktop and recommended software

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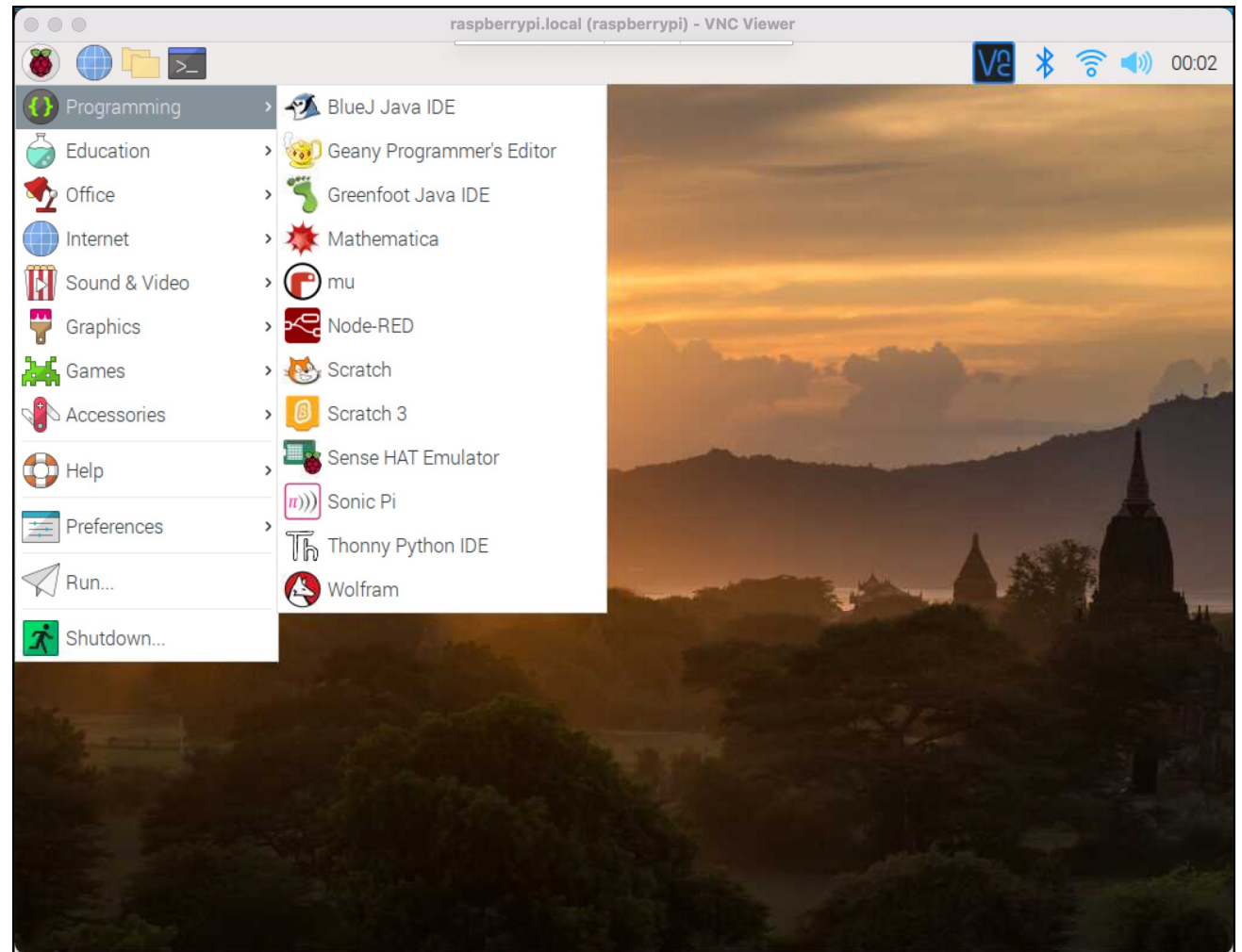
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QUESTIONS

END