# Step 1: Prepare the Base Image of Raspberry Pi OS

Download the official Raspberry Pi OS Lite or Desktop image from the official website:

- [Download Raspberry Pi OS](https://www.raspberrypi.org/software/operating-systems/)

Flash the image to an SD card for Raspberry Pi using an application like Balena Etcher.

# Step 2: Install Necessary Packages and Tools

Once the image is installed and Raspberry Pi is booted up:

1. Connect to the terminal (SSH or directly on the Raspberry Pi).

2. Update your system and install the necessary packages with the following commands:

sudo apt update && sudo apt upgrade -y  
sudo apt install udev python3 python3-pip

# Step 3: Create a Detection and Automatic Execution Script

Create a Python script that detects USB devices and runs the Python file if found:  
1. Create a file using the following command:  
 sudo nano /usr/local/bin/usb\_script\_runner.py  
2. Paste the following script into the file:

import os  
import subprocess  
  
SCRIPT\_NAME = "hotspot\_sans\_dmz.py"  
  
def find\_script\_in\_usb():  
 mounted\_devices = subprocess.check\_output("ls /media/pi", shell=True).decode().splitlines()  
 for device in mounted\_devices:  
 script\_path = f"/media/pi/{device}/{SCRIPT\_NAME}"  
 if os.path.exists(script\_path):  
 print(f"Script found: {script\_path}")  
 os.system(f"python3 {script\_path}")  
 break  
 else:  
 print(f"No script found in {device}")  
  
if \_\_name\_\_ == "\_\_main\_\_":  
 find\_script\_in\_usb()