**Raspberry pi 5 Initial Setup via SSH**

**📌 Initial Setup of Raspberry Pi 5 with VGA Monitor, Wired Keyboard, and Mouse**

Since you are using a **VGA monitor**, you will need an **HDMI-to-VGA adapter** to connect it to your Raspberry Pi 5. Follow these steps to set up your Pi **with a desktop environment**.

**🔹 Step 1: Gather the Required Components**

✅ **Raspberry Pi 5**  
✅ **MicroSD card (16GB or larger) with Raspberry Pi OS flashed**  
✅ **USB-C Power Supply (5V, 3A recommended)**  
✅ **VGA Monitor + HDMI-to-VGA Adapter**  
✅ **Wired Keyboard & Mouse (USB)**  
✅ **Micro-HDMI to HDMI Cable (for adapter connection)**

**🔹 Step 2: Connect the Hardware**

**Insert the microSD card** into the **Raspberry Pi 5**.  
**Connect the HDMI-to-VGA adapter**:

* Plug the **Micro-HDMI to HDMI cable** into **Raspberry Pi 5's Micro-HDMI port**.
* Connect the **HDMI end** to the **HDMI-to-VGA adapter**.
* Connect the **VGA cable** from the monitor to the adapter.  
  **Plug in a wired USB keyboard & mouse** to the Raspberry Pi 5.  
  **Connect the power supply (USB-C)** to turn on the Raspberry Pi.

**🔹 Step 3: First Boot into Raspberry Pi OS**

1. After powering on, wait for **Raspberry Pi OS to load**.
2. If using **Raspberry Pi OS with Desktop**, you should see a **Welcome Setup Wizard**.
3. Follow the on-screen setup:
   * **Choose Country, Language, and Time Zone**
   * **Set a new password for the "pi" user**
   * **Connect to Wi-Fi (Skip if using Ethernet)**
   * **Update Software (Recommended, but can be skipped)**
4. **Turn off the Pi**, remove the SD card, and insert it into your laptop.
5. Open the **boot partition** and check the **wpa\_supplicant.conf file**.
6. It should look exactly like this:

ini

CopyEdit

country=IN

ctrl\_interface=DIR=/var/run/wpa\_supplicant GROUP=netdev

update\_config=1

network={

ssid="Its My Hotspot"

psk="Manojkumar"

scan\_ssid=1

key\_mgmt=WPA-PSK

}

1. If everything looks correct, reinsert the SD card and reboot the Pi.

**🔹 Step 4: Enable SSH & VNC for Remote Access (Optional)**

Once the desktop is set up, enable SSH if you want to connect remotely later:

1. **Open Terminal** (Ctrl + Alt + T).
2. Run:

sudo raspi-config

1. Navigate to:
   * **Interface Options → SSH → Enable**
   * **Interface Options → VNC → Enable** (for remote desktop access)
2. Exit and reboot:

sudo reboot

**🔹 Step 5: Find Raspberry Pi’s IP Address (For SSH)**

If you want to **SSH from your Windows laptop later**:

1. Open Terminal on the Raspberry Pi.
2. Run:

hostname -I

1. Note the IP address (e.g., 192.168.137.42).
2. From your Windows laptop, connect via SSH:

**ssh pi@192.168.75.59**

(Replace with the actual IP address of your Raspberry Pi.)

Password:1234 (Connected..)