Setting up Rbpi | Yessmine

```
Login Data:
- username: moving2
- pwd: moving2024
```

To use the pi as a **computer**, use the monitor in front of the entrance door for micro to hdmi, mouse and Keyboard

▼ Using the pi with SSH headless setup

What is SSH

▼ Setting up SSH

Setting up SSH on rbpi

`sudo apt-get install ssh`

`sudo /etc/init.d/ssh start`

> 🔧 Damit Sie den SSH-Server nicht jedes Mal manuell starten müssen, können Sie ihn auch automatisch beim Booten aufrufen: `sudo update-rc.d ssh defaults`

Enable SSH on rbpi

Öffnen Sie dafür über das Startmenü von Raspbian das Menü "**Einstellungen - Raspberry-Pi-Konfiguration**". In diesem Menü wechseln Sie auf den Reiter "**Schnittstellen**" und stellen den Punkt "**SSH**" auf "**Aktiviert**" um. Nach einem Klick auf "**Ok**" müssen Sie den Raspberry Pi einmalig **neu starten**, um den SSH-Zugriff einzuschalten.

SSH-Verbindung unter Linux oder macOS nutzen

`sudo apt-get install ssh`

`ssh benutzername@IPAdressedesPi`

> ⚠️ To find IP Address, on rbpi terminal run cmd with UPPERCASE i : `hostname -I` or inet with `ifconfig`

Example: `ssh moving2@ 172.16.36.242` #double check the ip

▼ Error 1: authenticity can't be established

```
The authenticity of host '127.0.1.1 (127.0.1.1)' can'
ED25519 key fingerprint is SHA256:8JeXcB5eZj1da6NH57Z
This key is not known by any other names
```

▼ Explanation

It seems like you're encountering an SSH warning message indicating that the authenticity of the host '127.0.1.1' cannot be confirmed. This typically happens when you're connecting to a server for the first time or after it has been reinstalled or its keys regenerated.

The message includes the fingerprint of the ED25519 key, which is a cryptographic identifier for the server you're connecting to. Before proceeding, you should verify that this fingerprint matches the one you expect for the server. You can usually find the expected fingerprint in your server's documentation or by contacting the server administrator.

If you trust the server and its fingerprint matches the expected one, you can proceed by typing 'yes' to confirm the connection. This will add the server's key to your list of known hosts, and future connections will not prompt this warning unless the key changes again.

However, if you're unsure or suspect foul play, it's best to investigate further and verify the authenticity of the server before proceeding with the connection.

▼ Solution

▼ Alternative 1

Accept with the risk of being hacked

▼ Alternative 2

Verifying the fingerprint on the server

To verify your fingerprint, log in to your VPS server through a trusted method (for example, the console in your BitLaunch

control panel) and run the ssh-keygen command to get a readout of your key fingerprint:

ED25519:

- **SHA256:** On device run: `ssh-keygen -lf /etc/ssh/ssh_host_ed25519_key.pub`

▼ Error 2: Persmission denied

Permission denied

▼ Problem Explanation

- wrong IP Address (hostname i or hostname I) https://forums.raspberrypi.com/viewtopic.php?t=149681
- Eduroam Probmem

▼ TEMPORARY: Solution to eduroam problem

`ping IPAdressedesPi`

if nothing: Temporary solution to permission denied

1. Connect pi and laptop to an other wifi
2. Get new pi-ipaddress with: `hostname -I`
3. Connect to the rbpi: `ssh benutzername@IPAdressedesPi`

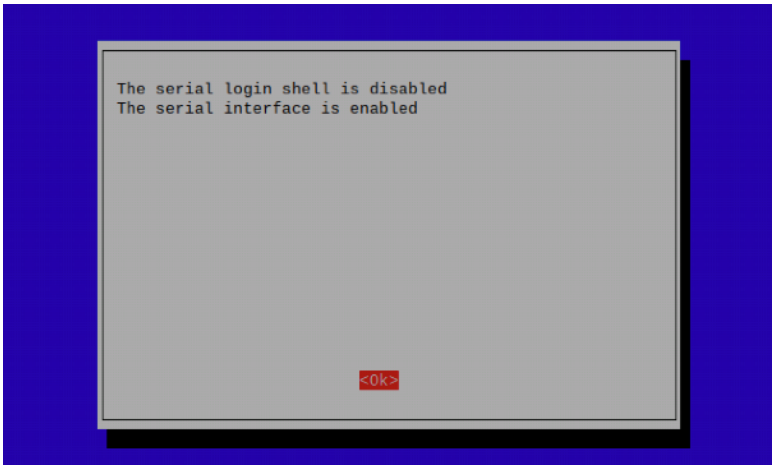
⚠ to restart pi from cmd line: `sudo reboot`

▼ Using SSH to run code

🔧 power rbpicode with type c cable and the pi hat with the power supply

🔧 Since we're connecting over freewifiberlin, the ipaddress of the pi could change, to double check, connect the pi after each reboot to a display and a mouse and call the ipaddress

1. Double check if pi Build Hat in preferences: Tutorial



2. to edit code with vscode ide
    a. `code` on your pc
    b. open remote session, double check ipaddress
3. To run a python script:

```
sudo python3 /path/my_script.py
```

https://www.youtube.com/watch?v=TZRGzLv57mc

▼ transfer file from local to rbpi

```
sudo scp -r /home/yessmine/Studies/6Semester/Project/buildhat++ sudo moving2@172.16.36.242 :~/test
```

next steps:

- Compile example code from buildhat++l ibrary c++ (I already put the library into the pi under home/test)