

How to Install PiKVM on Raspbian 32-bit (Pi4)

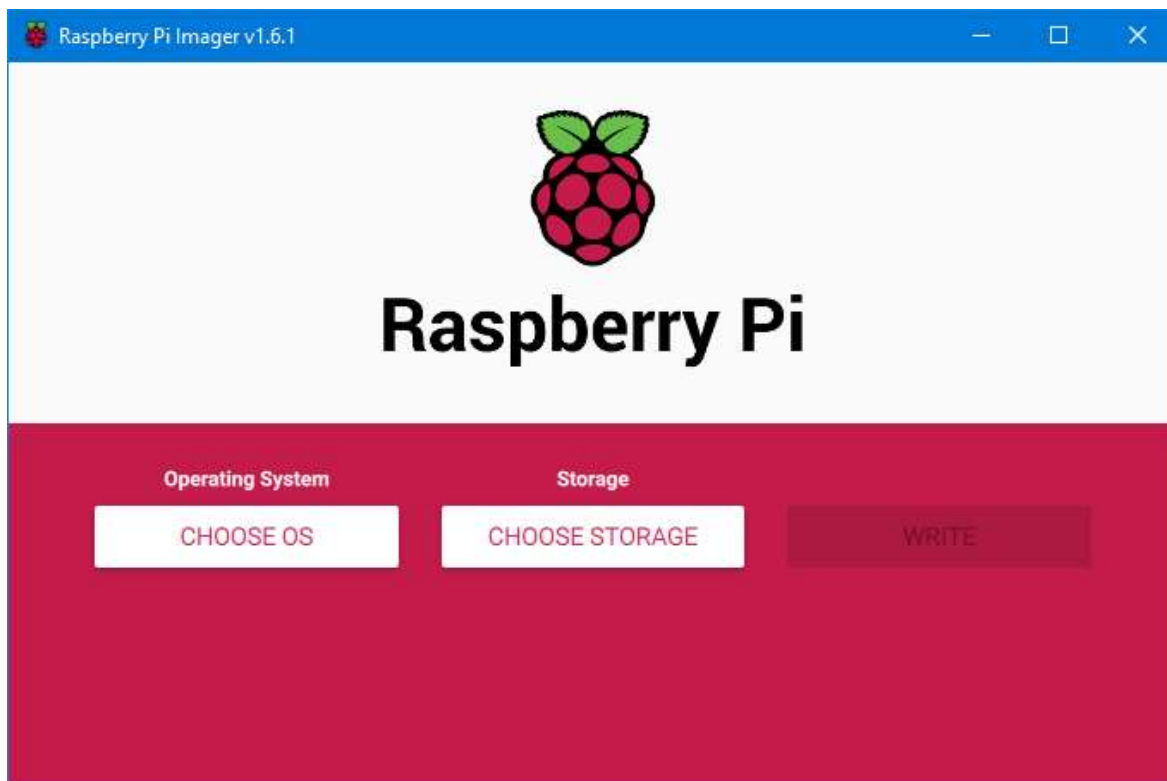
Installer script is made possible by @srepac and indirectly by @Arch1mede hounding me to get it done. It works for USB dongle, CSI v2, and v3 HAT images.

***** NOTE: This is an unsupported configuration by the PiKVM developers, but it does work *****

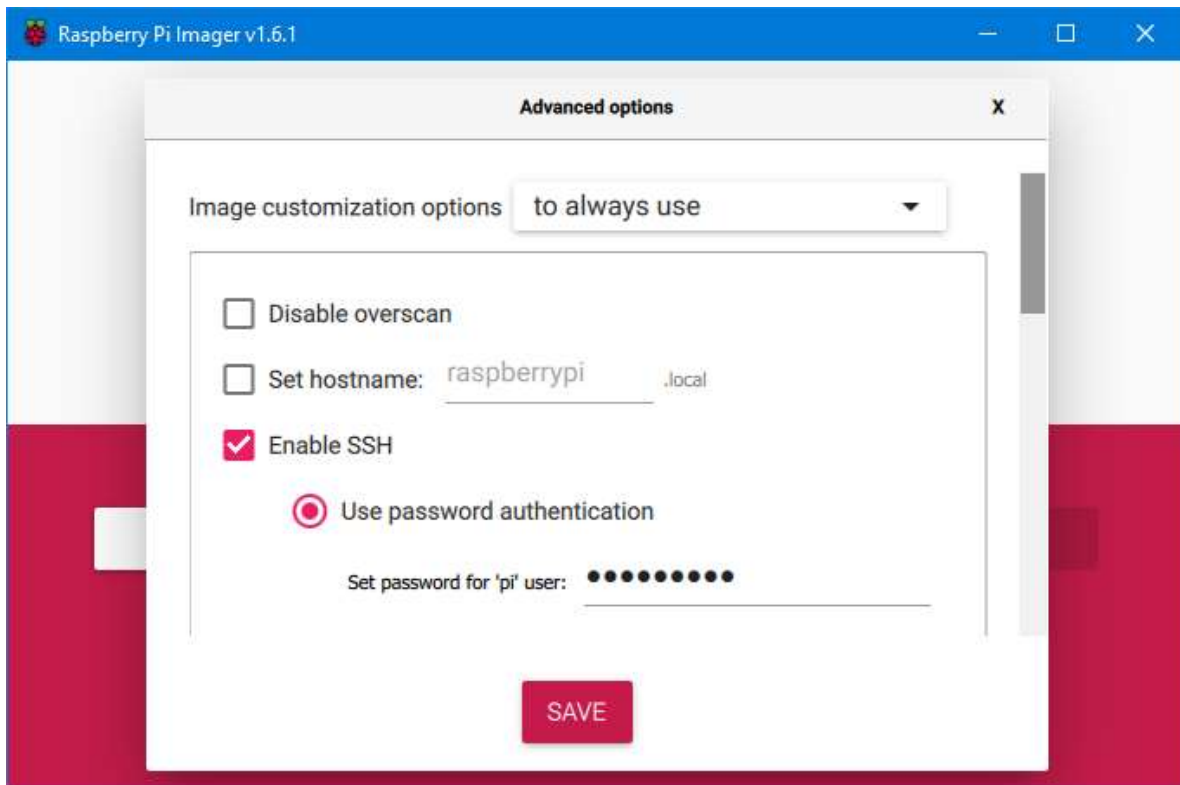
LIMITATIONS:

- Mass storage device is disabled by default as it's meant to be installed on external USB thumb or SSD.
- You will need to partition/format your USB drive as ext4 and add /etc/fstab entry (see script comments for details)

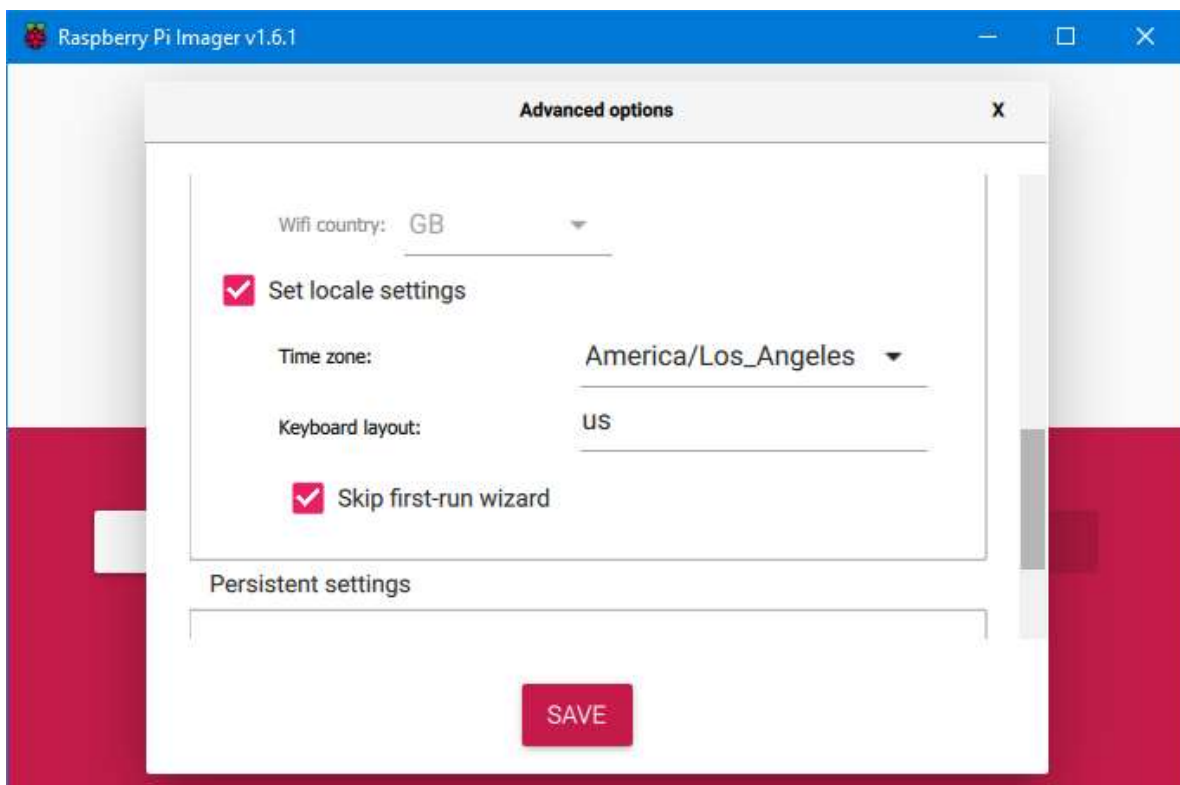
Pressing **SHIFT + CTRL + X** at the Raspberry Pi Imager main window will turn on Advanced options. You can choose to always use these options or for this session only.



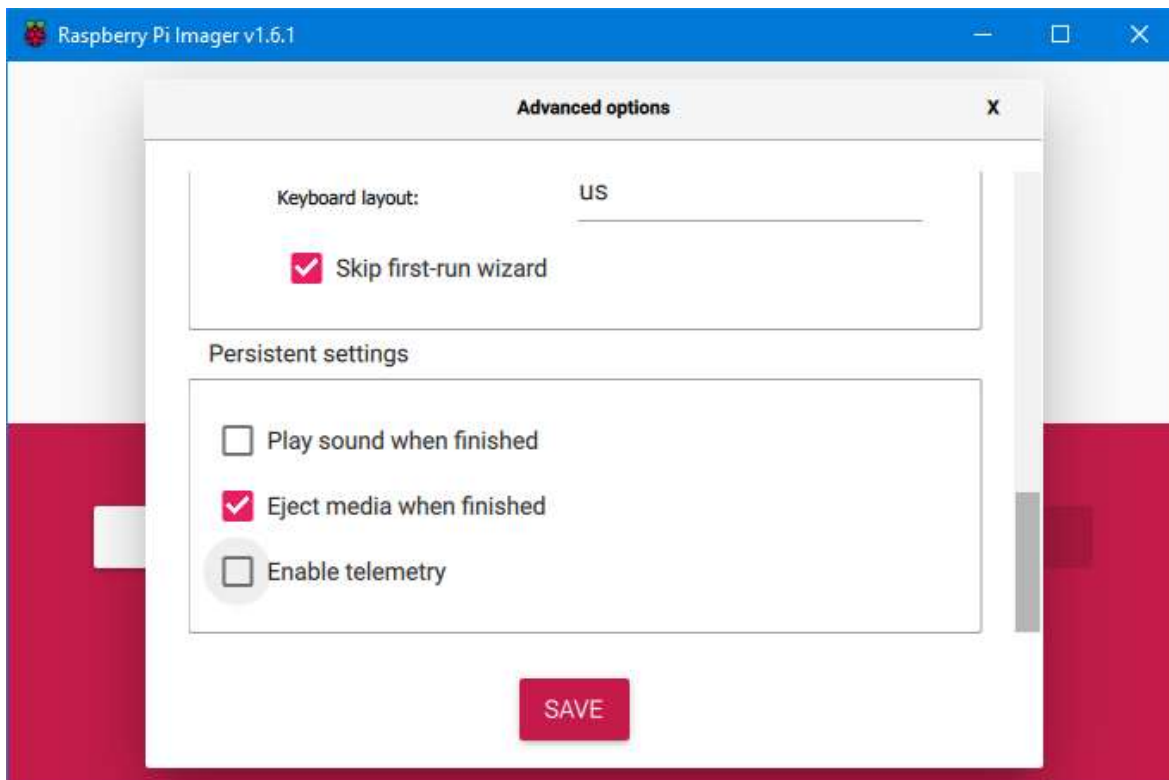
Make sure to click **Enable SSH** and set password for pi user at this time.



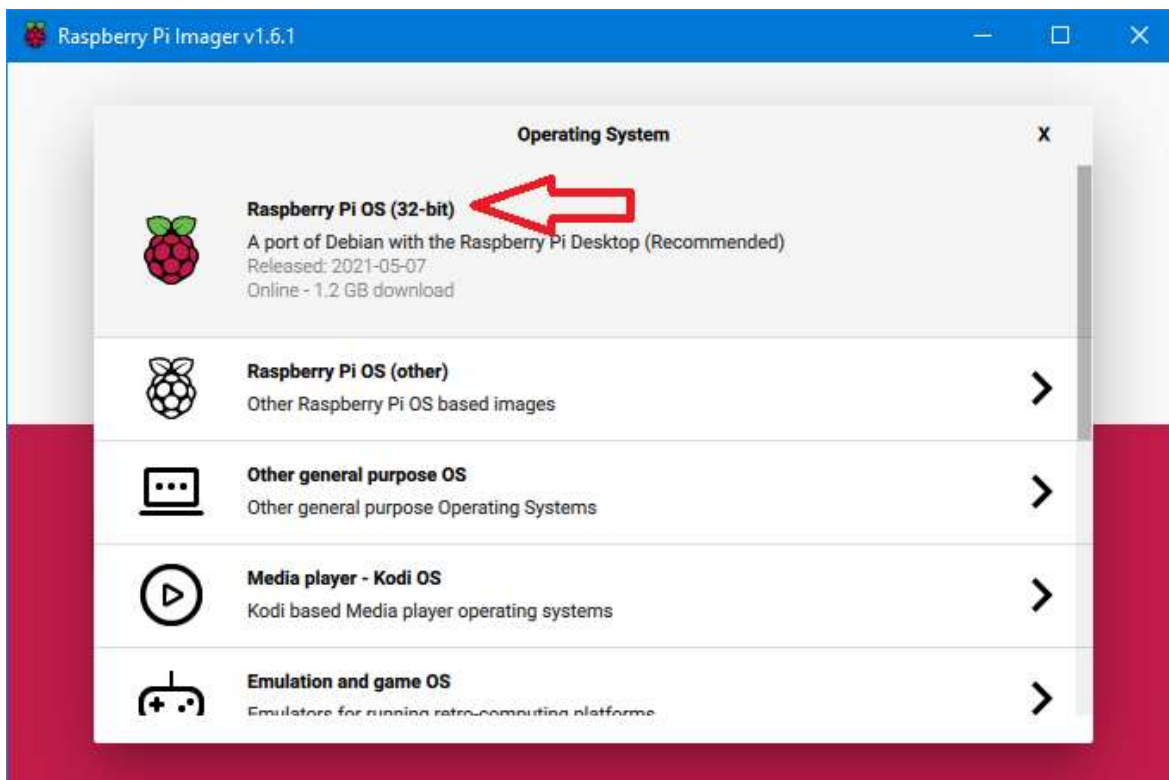
Set locale settings to your time zone and enable "Skip first-run wizard"



Uncheck telemetry.



Click on Save. Then choose Raspberry Pi OS (32-bit).

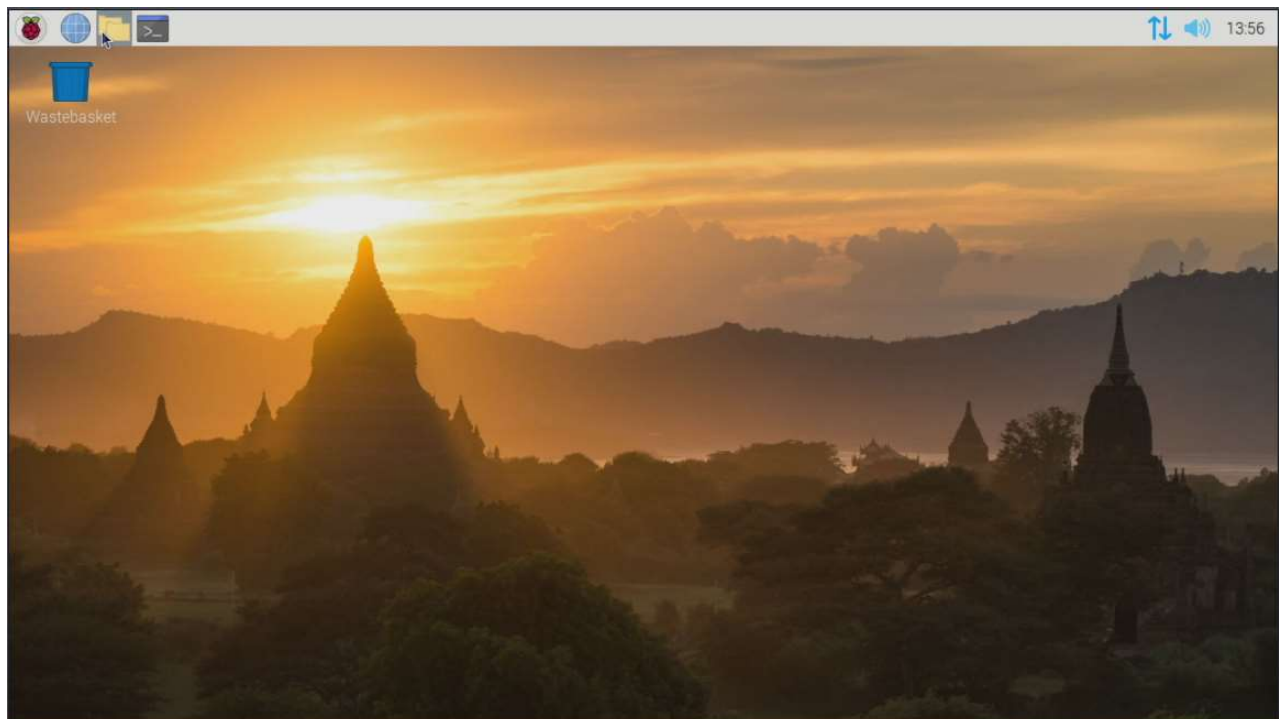


Click on CHOOSE STORAGE -> Select your SD card. **Please make sure you are selecting the correct one.**



Once everything looks correct, Click **WRITE**. Wait until the write and verify completes. Pop the SD card in to your completed Pi4 + video capture device + OTG power/data splitter and power it on.

If you happened to connect your Pi4 HDMI 0 port out to a monitor, wait until it logs in to Desktop. **(OPTIONAL)**



SSH to your raspberrypi with the pi user and password you typed in

```
ssh pi@raspberrypi

sudo su -

cd /usr/local/bin/

wget https://kvmnerds.com/RPiKVM/install-pikvm-raspbian.sh

chmod +x install-pikvm-raspbian.sh

install-pikvm-raspbian.sh
```

The installer does a two-part install. During the first part of the install, it will ask you as to what capture card you will be using with your PiKVM. It is imperative that you choose the correct one.

```
[root@raspberrypi ~]# ./install-pikvm-raspbian.sh

Running part 1 of PiKVM installer script for Raspbian by @srepac

-> Getting Pi-KVM packages from https://pikvm.org/repos/rpi4

wget https://pikvm.org/repos/rpi4 -O /var/cache/kvmd/packages.txt

wget https://pikvm.org/repos/rpi4/janus-gateway-pikvm-0.11.2-7-armv7h.pkg.tar.xz -O
/var/cache/kvmd/janus-gateway-pikvm-0.11.2-7-armv7h.pkg.tar.xz
wget https://pikvm.org/repos/rpi4/kvmd-3.17-1-any.pkg.tar.xz -O /var/cache/kvmd/kvmd-3.17-1-
any.pkg.tar.xz
wget https://pikvm.org/repos/rpi4/kvmd-platform-v2-hdmi-rpi4-3.17-1-any.pkg.tar.xz -O
/var/cache/kvmd/kvmd-platform-v2-hdmi-rpi4-3.17-1-any.pkg.tar.xz
wget https://pikvm.org/repos/rpi4/kvmd-platform-v2-hdmiusb-rpi4-3.17-1-any.pkg.tar.xz -O
/var/cache/kvmd/kvmd-platform-v2-hdmiusb-rpi4-3.17-1-any.pkg.tar.xz
wget https://pikvm.org/repos/rpi4/kvmd-platform-v3-hdmi-rpi4-3.17-1-any.pkg.tar.xz -O
/var/cache/kvmd/kvmd-platform-v3-hdmi-rpi4-3.17-1-any.pkg.tar.xz
wget https://pikvm.org/repos/rpi4/kvmd-webterm-0.40-1-any.pkg.tar.xz -O /var/cache/kvmd/kvmd-webterm-
0.40-1-any.pkg.tar.xz

ls -l /var/cache/kvmd
total 3436
-rw-r--r-- 1 root root 1038372 Aug 14 01:02 janus-gateway-pikvm-0.11.2-7-armv7h.pkg.tar.xz
-rw-r--r-- 1 root root 736752 Aug 14 01:02 kvmd-3.17-1-any.pkg.tar.xz
-rw-r--r-- 1 root root 5772 Aug 14 01:02 kvmd-platform-v2-hdmi-rpi4-3.17-1-any.pkg.tar.xz
-rw-r--r-- 1 root root 5448 Aug 14 01:02 kvmd-platform-v2-hdmiusb-rpi4-3.17-1-any.pkg.tar.xz
-rw-r--r-- 1 root root 5860 Aug 14 01:02 kvmd-platform-v3-hdmi-rpi4-3.17-1-any.pkg.tar.xz
-rw-r--r-- 1 root root 5804 Aug 14 01:02 kvmd-webterm-0.40-1-any.pkg.tar.xz
-rw-r--r-- 1 root root 20769 Aug 15 14:04 packages.txt
-rw-r--r-- 1 root root 143200 Aug 14 01:02 ustreamer-4.5-1-armv7h.pkg.tar.xz

Choose which capture device you will use:

1 - USB dongle
2 - v2 CSI
3 - V3 HAT
Please type [1-3]: 1

...
...

=== /etc/modules ===

# /etc/modules: kernel modules to load at boot time.
#
# This file contains the names of kernel modules that should be loaded
# at boot time, one per line. Lines beginning with "#" are ignored.
```

```
i2c-dev
dwc2
libcomposite
-> Enabling kvmd-nginx kvmd-webterm kvmd-otg and kvmd services, but do not start them.
```

Rebooting to create kvmd users and groups.
Please re-run this script after reboot to complete the install.

Press ENTER to continue or CTRL+C to break out of script. **<ENTER> key**

Once the Pi reboots, SSH back in and run the install-pikvm-raspbian.sh script to continue on to finish part 2 of the install.

```
[root@raspberrypi ~]# install-pikvm-raspbian.sh
```

Running part 2 of PiKVM installer script for Raspbian by @srepac

```
-> Disabling nginx service, so that we can use kvmd-nginx instead
Synchronizing state of nginx.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install disable nginx
```

```
-> Creating symlinks for use with kvmd python scripts
```

```
-> Creating kvmd-webterm homedir
drwxr-xr-x 3 kvmd-webterm root 4096 Aug 11 18:10 /home/kvmd-webterm
```

```
[...]
[...]
```

kvmd:

atx:

```
click_delay: 0.1
device: /dev/gpiochip0
hdd_led_debounce: 0.1
hdd_led_inverted: false
# hdd_led_pin: -1
hdd_led_pin: 22
long_click_delay: 5.5
power_led_debounce: 0.1
power_led_inverted: false
# power_led_pin: -1
power_led_pin: 24
# power_switch_pin: -1
power_switch_pin: 23
# reset_switch_pin: -1
reset_switch_pin: 27
# type: ''
type: gpio
```

auth:

```
enabled: true
external:
  type: ''

internal:
  file: /etc/kvmd/htpasswd
  force_users: []
  type: htpasswd
```

```
[...]
[...]
```

streamer:

```
host: localhost
port: 0
timeout: 5.0
# unix: ''
unix: /run/kvmd/ustreamer.sock
```

Did kvmd -m run properly? [y/n] **y**

Check kvmd devices

```
lrwxrwxrwx 1 root root 5 Aug 15 14:11 /dev/kvmd-hid-keyboard -> hidg0
lrwxrwxrwx 1 root root 5 Aug 15 14:11 /dev/kvmd-hid-mouse -> hidg1
lrwxrwxrwx 1 root root 5 Aug 15 14:11 /dev/kvmd-hid-mouse-alt -> hidg2
lrwxrwxrwx 1 root root 6 Aug 15 08:05 /dev/kvmd-video -> video0
```

You should see devices for keyboard, mouse, and video.

Point a browser to <https://raspberrypi>

If it doesn't work, then reboot one last time.

Please make sure kvmd services are running after reboot.

Lastly, check to make sure all kvmd* services are running. If not, reboot one last time and try to access webui.

Default web admin login is admin/admin.