====== small docuemntation of p-node proyect======
https://p-node.org/documentation/pibox/piboxv2_image and https://www.p-node.org/documentation

upload image

upload image to rapsberry pi

image file in:

http://www.p-node.org/pibox_img/pibox_V2.img

next use etcher

upload image on terminal

see de devices coneted

```
df -h
```

upload iso(img)

```
sudo dd if=2018-04-18-raspbian-stretch.img of=/dev/sdb status=progress
bs=1M
```

manual configuration

connet via ssh

```
ssh pi@<IP_of_the_pibox><code>
**update**
<code>
cd pibox_V2
git pull
```

if ssh dont work plese use and habiliate in raspberry pi config with , you can configurate wifi onthere:

```
sudo raspi-config<code>

**change wifi (manual way)**
<code>
 sudo nano /etc/hostapd/hostapd.conf
```

clear and preparete operating sistem

```
sudo apt-get update
sudo apt-get upgrade
sudo apt-get install git sox libav-tools oggfwd python3-pip
```

```
sudo pip3 install bs4
```

install radio cd git clone http://git.rybn.org/rybn/pibox_V2.git

install other things sudo apt-get install hostapd dnsmasq

stop services sudo systemctl stop dnsmasq sudo systemctl stop hostapd

create this and put it sudo nano /etc/hostapd/hostapd.conf interface=wlan0

```
driver=nl80211
ssid=myssid
hw_mode=g
channel=7
wmm_enabled=0
macaddr_acl=0
auth_algs=1
ignore_broadcast_ssid=0
```

open and other file sudo nano /etc/default/hostapd edit this #DAEMON_CONF="" for

```
DAEMON_CONF="/etc/hostapd/hostapd.conf"
```

copy an file and edit sudo cp /etc/dnsmasq.conf /etc/dnsmasq.conf_back echo "" | sudo tee
/etc/dnsmasq.conf

put this sudo nano /etc/dnsmasq.conf interface=wlan0

```
# Use the require wireless interface - usually wlan0
dhcp-range=192.168.100.2,192.168.100.10,255.255.255.0,24h
```

put this sudo nano /etc/dhcpcd.conf

```
interface wlan0
static ip_address=192.168.100.1/24
nohook wpa_supplicant
```

start services sudo systemctl restart dhcpcd sudo systemctl unmask hostapd sudo systemctl start
hostapd sudo systemctl enable hostapd sudo systemctl start dnsmasq

set name

```
sudo hostnamectl set-hostname "pibox"
```

put this after exit 0 sudo nano /etc/rc.local like this

```
        #!/bin/sh -e
        #
        # rc.local
        #
```

```
      # This script is executed at the end of each multiuser runlevel.
      # Make sure that the script will "exit 0" on success or any other
      # value on error.
      #
      # In order to enable or disable this script just change the
execution
      # bits.
      #
      # By default this script does nothing.
```

```
      # Print the IP address
      _IP=$(hostname -I) || true
      if [ "$_IP" ]; then
        printf "My IP address is %s\n" "$_IP"
      fi
```

this /usr/bin/python3 /home/pi/pibox_V2/go.py 2> /home/pi/pibox_V2/error_log.txt >/dev/null &

```
      exit 0
```

/usr/bin/python3 /home/pi/pibox_V2/go.py 2> /home/pi/pibox_V2/error_log.txt >/dev/null & create rules

put this sudo nano /etc/udev/rules.d/70-persistent-net.rules

```
  ACTION=="add", SUBSYSTEM=="net", DRIVERS=="r8188eu", NAME="wlan1"
```

shutdown sudo halt

wifi ssid pibox

password pnodeaccesspass

en la ip 192.168.100.1

https://p-node.org/documentation/pibox/piboxv2
https://p-node.org/documentation/pibox/pibox_antenna