TUTORIAL 2 - P2P WiFi + Net Sharing, Auto IP

2A P2P WiFi, Auto IP

2B P2P WiFi + Net Sharing

WEBELIVE

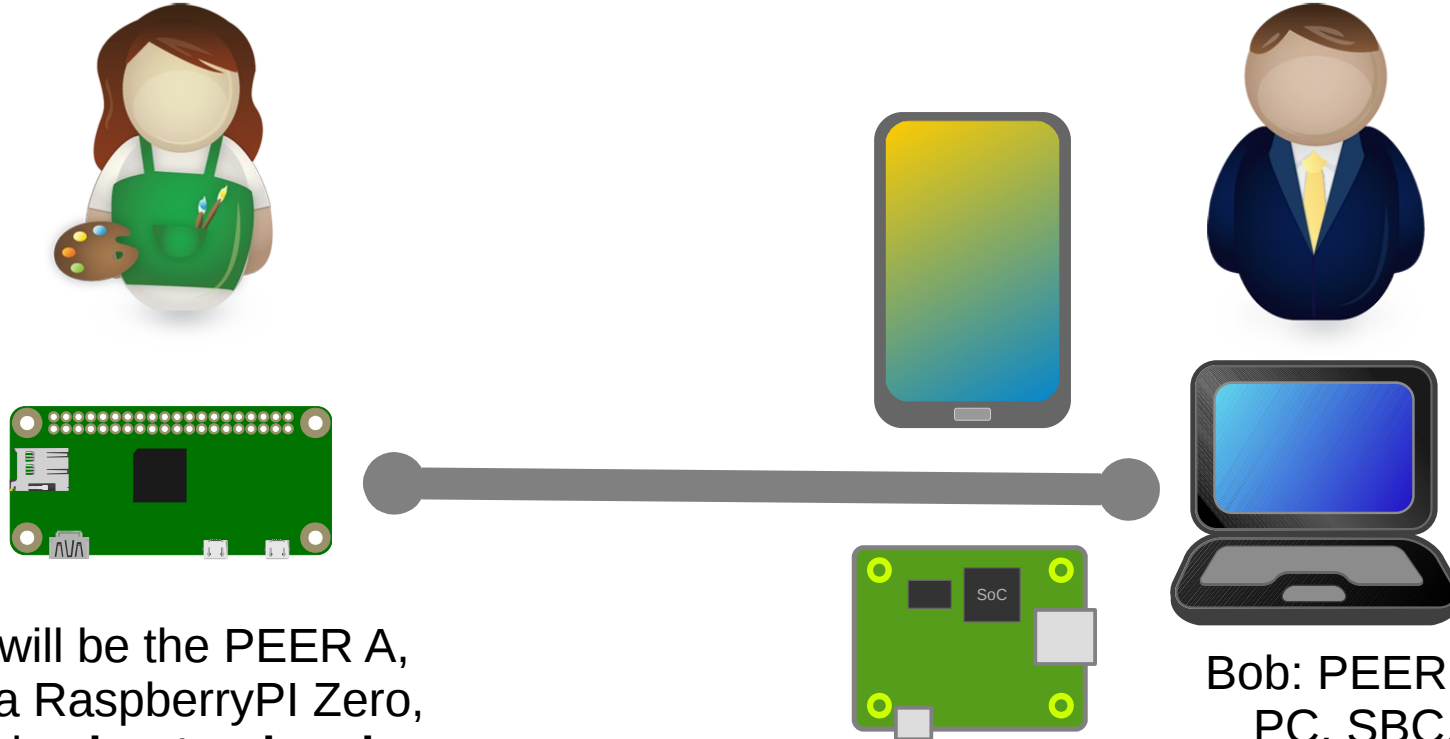**Tools for a LIVE Web**

On Github

Doc v1.0

"WL" stands for WEBELIVE, a series of small tutorials to use open source tools to connect devices in direct, private, secure P2P fashion

P2P WiFi - Automatic IP

B2.3.0

Alice will be the PEER A, using a RaspberryPI Zero, running **hostpad and dnsmasq**...

Bob: PEER B, PC, SBC, Smart-Device...
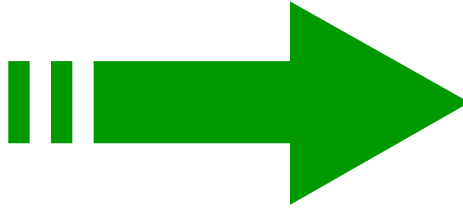
Soft used: hostapd + dnsmasq
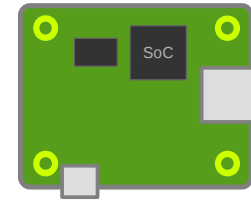
P2P WiFi - Automatic IP

B2.3.0

hostapd

dnsmasq

dnsmasq will automatically assign IP Address Numbers to all peer-guests that connects to the WIFI Network!

Peer(guests)

Soft used: hostapd + dnsmasq

P2P WiFi - Automatic IP

B2.3.0

hostapd

hostapd is installed in **exact the same way** described in the tutorial 1 (peer wifi)

Instructions
A2.x.x = **A1.x.x**
Please use the same Instructions

dnsmasq

dnsmasq is quite simple to install and setup, just need to add 2 lines to config.

The new instructions are here:
B2.3.x

P2P WiFi - Automatic IP

Install the dnsmasq software:

```
sudo apt install dnsmasq
```

Stop the software, so that we can configure it:

```
sudo service dnsmasq stop
```

If you get error on the installation step, then update your system and try again:

```
sudo apt update
```

P2P WiFi - Automatic IP

/etc/dnsmasq.conf

Create/Modify the dnsmasq configuration file:

```
sudo nano  /etc/dnsmasq.conf
```

Add the following instructions (lines):

```
interface=wlan0
dhcp-range=192.168.50.50,192.168.50.100,255.255.255.0,24h
```

P2P WiFi - Automatic IP

Start the dnsmasq software:

```
sudo  service dnsmasq start
```

Done, now you can connect peer-guests without the need of manual IP Address setup!

Just choose the SSID and enter the password/passphrase.

3 INDEPENDENT, VERY EASY TUTORIALS

Running all 3 experiments, or reading all 3 tutorials, should be enough to help the user to get a very good basic understanding about the subject. From there, the user can choose a combination appropriated for a specific objective.

TUTORIAL 1 – Peer WiFi + Net Sharing, Manual IP

1A Peer WiFi Manual IP

1B Peer WiFi + Net Sharing

TUTORIAL 2 – P2P WiFi + Net Sharing, Auto IP

2A P2P WiFi, Auto IP

2B P2P WiFi + Net Sharing

TUTORIAL 3 – Internet Router Bridge

TUTORIAL 1 – Peer WiFi + Net Sharing, Manual IP

1A Peer WiFi Manual IP

hostapd

1B Peer WiFi + Net Sharing

hostapd + iptables rules

TUTORIAL 2 - P2P WiFi + Net Sharing, Auto IP

2A P2P WiFi, Auto IP

hostapd + dnsmasq

2B P2P WiFi + Net Sharing

hostapd + dnsmasq + iptables rules

TUTORIAL 3 – Internet Router Bridge

hostapd + bridge