**HARDWARE**

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verified parts

<http://elinux.org/RPi_VerifiedPeripherals>

Ralink RT5370

**OS**

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raspbian

<http://www.raspberrypi.org/documentation/installation/installing-images/linux.md>

common tools

rpi-update

raspi-config

**WIFI HOTSPOT** <http://elinux.org/RPI-Wireless-Hotspot>

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sudo apt-get install hostapd udhcpd

**/etc/udhcpd.conf**

start 192.168.114.2

end 192.168.114.20

interface wlan0

max\_leases 16

remaining yes

opt dns 8.8.8.8 4.2.2.2

option subnet 255.255.255.0

opt router 192.168.114.1

#opt wins 192.168.10.10

#option dns 129.219.13.81 # appened to above DNS servers for a total of 3

#option domain local

option lease 864000 # 10 days of seconds

**/etc/default/udhcpd**

#DHCPD\_ENABLED="no"

**/etc/network/interfaces**

auto lo

iface lo inet loopback

#iface eth0 inet dhcp

auto eth0

iface eth0 inet static

address 192.168.113.41

netmask 255.255.255.192

broadcast 192.168.113.63

network 192.168.113.0

gateway 192.168.113.1

#auto wlan0

iface wlan0 inet static

address 192.168.114.1

netmask 255.255.255.0

#allow-hotplug wlan0

#iface wlan0 inet manual

#wpa-roam /etc/wpa\_supplicant/wpa\_supplicant.conf

#iface default inet dhcp

**/etc/hostapd/hostapd.conf**

interface=wlan0

driver=nl80211

ssid=rpi01

hw\_mode=g

channel=6

macaddr\_acl=0

auth\_algs=1

ignore\_broadcast\_ssid=0

wpa=2

wpa\_passphrase=pickles01

wpa\_key\_mgmt=WPA-PSK

wpa\_pairwise=TKIP

rsn\_pairwise=CCMP

**/etc/default/hostapd**

DAEMON\_CONF="/etc/hostapd/hostapd.conf"

Fire it up! Run the following commands to start the access point:

sudo service hostapd start

sudo service udhcpd start

Your Pi should now be hosting a wireless hotspot. To get the hotspot to start on boot, run these additional commands:

sudo update-rc.d hostapd enable

sudo update-rc.d udhcpd enable

**PI power**

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car shutdown

<http://mausberrycircuits.com/pages/car-setup>

PI UPS

<http://piups.net/support/>

<http://www.mcmelectronics.com/product/28-18180>

GND = blk

+12V = red

sw is **piusvd**

**/usr/share/piusvmonitor/**