

Raspberry Pi and lapdock

How to and pitfalls

Install Raspberry Pi

- ▶ Install Raspberry pi according to directions
- ▶ Get lapdock
- ▶ Get cables
- ▶ Hardware hack
- ▶ Software hack
- ▶ References

Raspbian Wheezy

- ▶ Install the distribution on an SD card
- ▶ Connect and boot up
- ▶ Run raspi-config and enable ssh (among others)
- ▶ You can now ssh into the Rpi if you want now
- ▶ add wpa_supplicant config file to enable wifi, and put wifi usb dongle in place. reboot.

wpa_supplicant.conf

```
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1
```

```
network={
    ssid="My Home Network"
    proto=RSN
    key_mgmt=WPA-PSK
    pairwise=CCMP TKIP
    group=CCMP TKIP
    psk="<redacted>"
}
```

```
network={
    ssid="heatsynclabs"
    proto=RSN
    key_mgmt=WPA-PSK
    pairwise=CCMP TKIP
    group=CCMP TKIP
    psk="hacktheplanet"
}
```

```
network={
    ssid="Gangplank"
    proto=RSN
    key_mgmt=WPA-PSK
    pairwise=CCMP TKIP
    group=CCMP TKIP
    psk="walktheplank"
}
```


Materials

- ▶ Motorola Lapdock for Altrix 4G (other ones would probably do alright)
- ▶ Female to Male μ usb cable
- ▶ Female μ hdmi to male hdmi adapter
- ▶ Normal hdmi cable
- ▶ Normal usb cable

Hack Hardware

- ▶ Cut μ usb cable in half; strip red, black, white and green wires then other half strip red and black only.
- ▶ Then cut normal usb cable to length and strip white and green.
- ▶ it turns out that red and black are power and ground, and white and green are kbd and mouse
- ▶ solder red and black leads together for μ usb and white and green for regular usb cable
- ▶ then put heatshrink around all to cover a multitude of sins, but I won't tell!

Software Hack

- ▶ need to edit inittab to not use tty for the console
- ▶ needed to map a key (maybe because of it being a UK keyboard?)

```
if [ `hostname` = "raspberrypi" ]; then  
    xmodmap -e "keycode 94 = backslash bar"  
fi
```


References

- ▶ raspberrypi.org
- ▶ http://www.youtube.com/watchfeature=player_embedded&v=yZkz_a52l6s
- ▶ <http://rpidock.blogspot.com/2012/05/raspberry-pi-and-motorola-lapdock.html>
- ▶ [google is your best friend](#)