

Raspberry PI pour les agents secrets

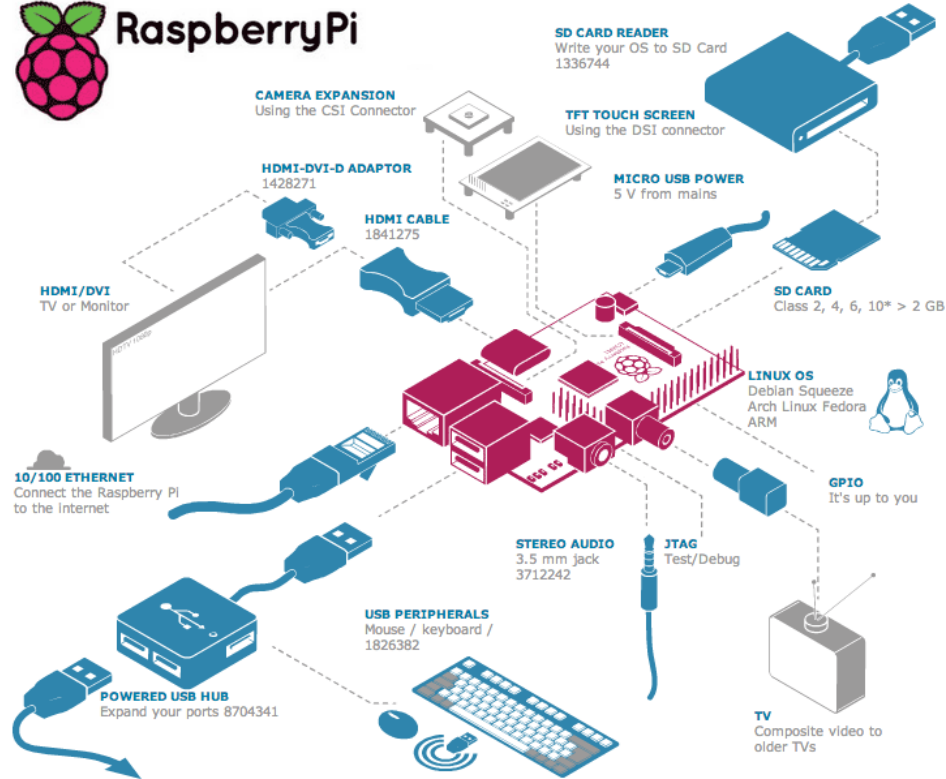
15 exemples d'utilisation

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RPi



RaspberryPi



<http://fr.farnell.com/raspberry-pi-accessories>

Besoin d'un agent secret

- Communication avec M
- Obtenir l'information secrète
- Défendre ça propre information
- Combattre les ennemies
- Agents de deuxième plan
- Transport (voiture ultra hi-tech)
- Gadgets

Communication avec M

Talking to people from distance

- Microphone USB
- Casque
- SoX
 - `sox -d -t sox - | ssh pi@[IP address] sox -q -t sox - -d`

Voice transformation

- SoX
 - `sox -t alsa plughw:1 -d reverb 99 50 0`
 - Alpes : `echo 0.8 0.9 1000 0.3`
 - Sci-fi robot : `flanger 30 10 0 100 10 tri 25 lin`
 - Shtrumpf : `pitch 500`

Obtenir l'information secrète

Audio Recording

- SoX
 - `alias record='sox -t alsa plughw:1 -t wav - | lame -'`
 - `record newrec.mp3`
- tmux / screen
 - to not break the session

Audio Transmission

- Remote recording

- `ssh pi@[IP address] sox -t alsa plughw:1 -t wav - > ~/Desktop/myrec.wav`

- Speak to people

- `sox -d -t sox - | ssh pi@[IP address] sox -q -t sox - -d`

Recording the video stream

- VLC
 - `vlc http://[IP address]:8080/?action=stream --sout='#standard{mux=avi,dst=/home/[username]/Desktop/myvideo.avi,access=file}'`

Viewing Your webcam

- Video

- `vlc http://[IP address]:8080/?action=stream`

- Audio

- `ssh pi@[IP-address] sox -t alsa plughw:1 -t sox - |
sox -q -t sox - -d`

Monitoring WiFi

- Kismet
 - Wi-Fi spectrum and traffic analyzer

Analyzing packet dumps

- logging

- `sudo ettercap -q -T -i wlan0 -M arp:remote -d -w mycapture.pcap /[Router IP]/ /[PC IP]/`

- Analyzing

- `ssh pi@[IP address] cat /home/pi/kismetlogs/Kismet-XXXX.pcapdump | wireshark -k -i -`

Combattre les ennemies

Detecting an intruder

- Motion

Turning on and off a TV

- cron
- Motion

Staging a playback scare

- Assign to Motion

Traffic replacement

- etterfilter

```
if (ip.proto == TCP && tcp.dst == 80) {  
    if (search(DATA.data, "Accept-Encoding")) {  
        replace("Accept-Encoding", "Accept-Mischief");  
    }  
}  
  
if (ip.proto == TCP && tcp.src == 80) {  
    if (search(DATA.data, "<img")) {  
        replace("src=", "src=\"http://www.gnu.org/graphics/babies/  
BabyGnuTux-Small.png\" ");  
        replace("SRC=", "src=\"http://www.gnu.org/graphics/babies/  
BabyGnuTux-Small.png\" ");  
        msg("Mischief Managed!\n");  
    }  
}
```

Ennemies réels ?



Défendre ça propre information

Protection against Ettercap

- static ARP entries
- ettercap
 - chk_poison plugin

Keeping data secret

- cryptsetup
 - crypted containers
- dosfstools
 - for Win compatibilty

Agents de deuxième plan





Transport (voiture ultra hi-tech)

RPi integration



GPS Tracking

- USB GPS receiver (projects verified with Columbus V-800)
- gpsd
- cgps

Gadgets

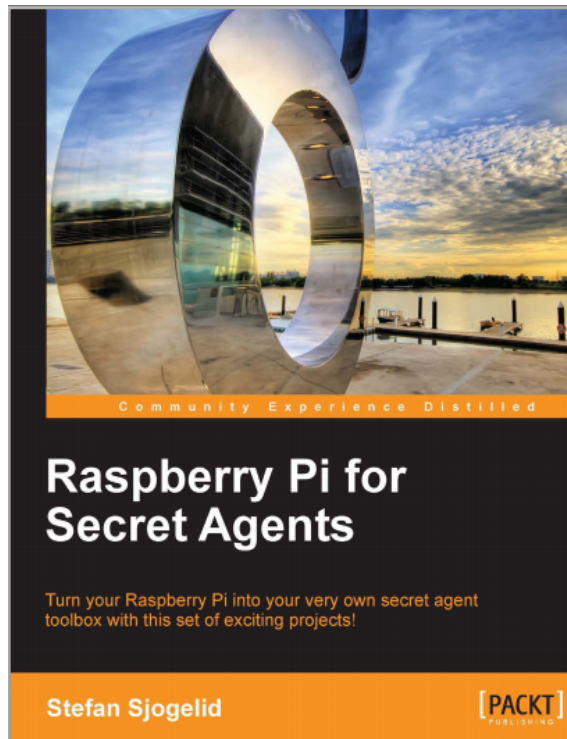
Controlling PI with Your smartphone

- NetIO
- SSH client
- Coversal - Linux Remote Control

Connectivité

- **Senseurs**
 - Lumiere
 - Mouvement
 - Distance
- **Triggers**
- **Relais**

Livre à conseiller



Références

- <http://www.tuxboard.com/gadgets-des-agents-secrets/>
- <http://projectsentrygun.rudolphlabs.com/>
- <http://www.geek.com/news/autonomous-nerf-sentry-gun-picks-its-targets-protects-your-toy-chest-1561381/>
- <http://blog.kaazing.com/2013/04/01/remote-controlling-a-car-over-the-web-ingredients-smartphone-websocket-and-raspberry-pi/>
- <http://www.raspberrypi.org/raspberry-pi-car-computer/>
- <http://oversimple.fr/alarme-de-maison-avec-un-raspberry-pi/>
- <http://fr.farnell.com/raspberry-pi-accessories>
- <http://korben.info/idees-raspberry-pi.html>