

Debian Post-install

Sergio Alvariño salvari@gmail.com

julio-2016

Resumen

Instalación de Debian

Algunas notas referentes a la instalación de Debian Jessie

Índice general

1	Introducción	4
2	Cambiar las opciones de idioma	4
3	Gestión de paquetes	5
3.1	Quitamos el cdrom de los sources.list	5
3.2	Habilitamos los backports y multimedia	5
3.2.1	Backports:	5
3.2.2	Multimedia:	5
4	Instalación de varios paquetes sueltos	6
4.1	Programas de utilidad y uso frecuente	6
4.1.1	Menulibre	6
4.1.2	Terminator	6
4.1.3	Keepass2	6
4.1.4	gksu	6
4.1.5	Diskmanager	6
4.1.6	Gnucash	7
4.1.7	Herramientas <i>sync</i>	7
4.1.8	Dropbox	7
4.1.9	Compresores et al	7
4.1.10	Freeplane	7
4.1.11	Telegram desktop	7
4.2	Internet	7

4.2.1	Chrome y Chromium	7
4.2.2	Tor	8
4.2.3	Deluge	8
4.2.4	TiddlyDesktop	8
4.3	Gráficos	9
4.3.1	Inkscape	9
4.3.2	LibreCAD y FreeCAD	9
4.3.3	Gimp	9
4.4	Fotografía	9
4.4.1	Rawtherapee y Darktable: Tratamiento de imágenes fotográficas	9
4.4.2	Stopmotion	9
4.5	Audio y video	10
4.5.1	Codecs	10
4.5.2	Reproductores de música	10
4.5.3	Gpodder	10
4.5.4	Spotify	10
4.5.5	Video	11
5	Documentos	11
5.1	Calibre	11
5.2	Pandoc	11
5.3	Zotero	12
5.4	Vanilla LaTeX	12
5.4.1	Falsificando paquetes	12
5.4.2	Fuentes	13
5.4.3	Actualizaciones	13
5.4.4	Lanzador para el actualizador de texlive	14
5.5	Emacs	14
5.6	Scribus	17
5.7	Comix	18
6	Desarrollo sw	18
6.1	Git	18
6.2	Paquetes esenciales	18
6.3	Open Java	18
6.4	D-apt e instalación de programas	19
6.5	DCD	19
6.6	gdc	19
6.7	ldc	19
6.8	Emacs para editar D	20
6.8.1	Referencias	21

6.9	Processing	21
6.10	Openframeworks	21
6.11	Python	22
6.11.1	iPython y GraphLab	23
6.11.2	Usar Emacs para editar Python	24
7	Desarrollo hardware	24
7.1	Arduino IDE	24
7.2	Pinguino IDE	25
7.3	KiCAD	25
8	Virtualización	25
8.1	Docker	25
8.2	Virtualbox	26
8.3	Virtualizando un Windows 7	26
9	Shells alternativos: zsh y fish	27
9.1	fish	27
9.2	zsh	27
9.3	Instalación de fuentes adicionales	28
10	Reprap	29
10.1	Sl1c3r	29
10.2	OpenScad	29
10.3	Printrun	29
10.4	Cura	29
11	Aplicaciones Web	30
11.1	Servidor Web	30
11.1.1	Apache	30
11.1.2	nginx	30
11.2	Servidores de bases de datos	31
11.2.1	MySQL	31
11.2.2	Cliente SQL Squirrel SQL	31
11.2.3	MariaDB	31
12	Cuentas online abiertas	31
13	Recetas varias	32
13.1	Orange Pi Zero	32
13.1.1	Crear una SD arrancable	32
13.1.2	Conexión WIFI	34
13.1.3	Referencias	35

13.2 Raspberry Pi Media Center	37
14 TODO	39
15 Links	39
16 Licencia	39

1 Introducción

Mi portátil es un ordenador Acer 5755G con las siguientes características:

- Core i5 2430M 2.4GHz
- NVIDIA Geforce GT 540M
- 8Gb RAM
- 750Gb HD

La gráfica es una Nvidia Optimus, es decir una tarjeta híbrida que funciona perfectamente en Ubuntu 14.04 usando Bumblebee.

Para hacer la actualización del sistema opté por desinstalar el dvd y montar en su lugar un disco SSD en un Caddie para Acer. La instalación fué muy fácil, y aunque el portátil arranca perfectamente de cualquiera de los dos discos opté por instalar el SSD en la bahía del HD original y pasar el HD al caddie.

Comentar los problemas con calentamiento en Ubuntu

Comentar la creación de usb bootable

Lo primero fue la instalación del Bumblebee

firmware-linux-nonfree Bumblebee-nvidia primus

2 Cambiar las opciones de idioma

Ejecutamos:

```
sudo dpkg-reconfigure locales
```

Y después solo tenemos que cambiar la selección del idioma en la configuración de Gnome.

Nos pedirá rearrancar Gnome y renombrará todos los directorios de sistema.

3 Gestión de paquetes

Instalamos *aptitude*, *synaptic* y *gdebi*

```
sudo apt-get install aptitude
sudo apt-get install synaptic
sudo apt-get install gdebi
```

Cambiamos las opciones de *aptitude* para que **no instale** los paquetes recomendados.

3.1 Quitamos el cdrom de los sources.list

Editamos el fichero */etc/apt/sources.list* y comentamos las líneas del cdrom.

3.2 Habilitamos los backports y multimedia

3.2.1 Backports:

```
sudo cat > /etc/apt/sources.list.d/backports.list << EOF
# backports
deb http://ftp.debian.org/debian/ jessie-backports main contrib non-free
EOF
```

3.2.2 Multimedia:

```
sudo cat >> /etc/apt/sources.list.d/multimedia.list << EOF
# multimedia
deb http://www.deb-multimedia.org/ jessie main non-free
EOF
```

```
sudo apt-get -y --allow-unauthenticated install --reinstall deb-multimedia-keyring
```

Y actualizamos

```
sudo aptitude update
```

4 Instalación de varios paquetes sueltos

4.1 Programas de utilidad y uso frecuente

4.1.1 Menulibre

Un editor de menús para Gnome, nos permite generar los archivos desktop para cualquier aplicación. Mucho más completo que *alacarte* la otra alternativa.

```
sudo apt-get install menulibre
```

4.1.2 Terminator

Terminator es un emulador de terminal muy completo y muy flexible. Los instalamos desde *aptitude*

```
sudo aptitude install terminator python-keybinder
```

4.1.3 Keepass2

Instalado *keepass2* desde Debian

```
sudo aptitude install keepass2
```

4.1.4 gksu

Un *sudo* en modo gráfico:

```
sudo aptitude install gksu
```

Muy importante ejecutar *gksu-properties* y escoger el modo *sudo* en lugar de *su*. Nos evitaremos problemas con la instalación de muchas aplicaciones.

4.1.5 Diskmanager

Para gestionar discos portátiles

```
sudo apt-get install ntfs-3g disk-manager
```

4.1.6 Gnucash

Finanzas en linux

```
sudo apt-get -t jessie-backports install gnucash
```

4.1.7 Herramientas *sync*

No sin mis *backups*

```
sudo apt-get install rsync grsync
```

4.1.8 Dropbox

Bajado el paquete Debian desde la página [web de Dropbox](#), instalado el paquete con *packageinstall*, es decir, simplemente pinchando desde el gestor de ficheros.

4.1.9 Compresores et al

```
sudo apt-get install rar unrar zip unzip unace bzip2 lzop p7zip p7zip-full p7zip-rar
```

4.1.10 Freeplane

Mejor que [Freemind](#) (en mi opinión). El baile de siempre, descargar de la [web](#), descomprimir en *~/apps* y crear lanzador con *MenuLibre*. Todos los ficheros que tenía de *Freemind* se pueden usar directamente con *Freeplane*.

4.1.11 Telegram desktop

El cliente de mensajería de Telegram. Descargado desde la web, instalado en *~/apps*

4.2 Internet

4.2.1 Chrome y Chromium

Instalado chrome añadiendo fuentes a aptitude. No recuerdo como las añadí, en el fichero */etc/apt/sources.list.d/google-chrome.list*, tengo los siguientes contenidos:

```
###
###
###
###
### THIS FILE IS AUTOMATICALLY CONFIGURED ###
# You may comment out this entry, but any other modifications may be lost.
deb [arch=amd64] http://dl.google.com/linux/chrome/deb/ stable main
```

Ejecutamos:

```
sudo aptitude install google-chrome-stable
sudo aptitude install chromium
```

4.2.2 Tor

Bajado el comprimido desde la web y descomprimido en `~/apps` copiado el fichero desktop a `~/.local/share/applications`

4.2.3 Deluge

Instalamos desde aptitude

```
sudo aptitude install deluge
xdg-mime default deluge.desktop x-scheme-handler/magnet
```

4.2.4 TiddlyDesktop

Tiddly es una wiki auto-contenida y muy flexible, tiene un sinfin de versiones adaptadas para diferentes usos. Hace años que la uso como cuaderno de bitácora personal, pero no había seguido su evolución.

Me he descargado:

- [Tiddlywiki](#) y le he instalado los plugins de *FontAwesome* y *WikiMap*, este será mi nuevo cuaderno de bitácora.
- [GSD5](#) un *TiddlyWiki* adaptado a *GTD*

A mayores me he instalado la aplicación [TiddlyDesktop](#), basada en *node webkit* que simplifica el tema de backups (en teoría).

Como siempre la instalamos en `~/apps` y creamos un lanzador con *MenuLibre*.

4.3 Gráficos

4.3.1 Inkscape

```
apt-cache policy inkscape  
apt-get -t jessie-backports install inkscape  
aptitude install ink-generator
```

4.3.2 LibreCAD y FreeCAD

Instalado desde repos con aptitude

```
apt-get install librecad
```

```
apt-get -t jessie-backports install freecad
```

4.3.3 Gimp

Gimp ya estaba instalado, adicionalmente instalado el gimp data-extra

```
sudo aptitude install gimp-plugin-registry gimp-texturize gimp-data-extras gimp-gap
```

4.4 Fotografía

4.4.1 Rawtherapee y Darktable: Tratamiento de imágenes fotográficas

```
sudo aptitude install icc-profiles icc-profiles-free  
sudo aptitude install rawtherapee darktable
```

4.4.2 Stopmotion

```
sudo aptitude install stopmotion vgrabdj dvgrab
```

TODO: Probar qStopmotion

4.5 Audio y video

4.5.1 Codecs

Instalamos los codecs

```
sudo apt-get install libav-tools
```

```
sudo apt-get install faad gstreamer0.10-ffmpeg gstreamer0.10-x \
gstreamer0.10-fluendo-mp3 gstreamer0.10-plugins-base \
gstreamer0.10-plugins-good gstreamer0.10-plugins-bad \
gstreamer0.10-plugins-ugly ffmpeg lame twolame vorbis-tools \
libquicktime2 libfaac0 libmp3lame0 libxine2-all-plugins libdvdread4 \
libdvdnav4 libmad0 sox libxvidcore4 libstdc++5
```

```
sudo apt-get install w64codecs
```

4.5.2 Reproductores de música

Instalamos *Clementine*, *decibel*, *audacity*, *soundconverter*:

```
sudo aptitude install clementine gstreamer0.10-plugins-bad
sudo aptitude install decibel-audio-player audacity soundconverter
```

4.5.3 Gpodder

Instalamos *gpodder* para gestionar nuestros podcast, aunque *Clementine* también nos vale.

```
sudo aptitude install gpodder
```

4.5.4 Spotify

Cliente de *Spotify*

```
sudo apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --recv-keys BBEEDCB318AD50EC6865090613B00F1
echo deb http://repository.spotify.com stable non-free | sudo tee /etc/apt/sources.list.d/spotify.list
sudo aptitude update
sudo aptitude install spotify-client
```

4.5.5 Video

Instalamos también utilidades de video:

```
sudo aptitude install vlc browser-plugin-vlc
sudo aptitude install recordmydesktop gtk-recordmydesktop
sudo aptitude install handbrake handbrake-cli handbrake-gtk
```

5 Documentos

5.1 Calibre

Ejecutamos lo que manda la página web:

```
sudo -v && wget -nv -O- https://raw.githubusercontent.com/kovidgoyal/calibre/master/setup/linux-install
| sudo python -c "import sys; main=lambda:sys.stderr.write('Download failed\n'); exec(sys.stdin.read())"
```

Para usar el calibre con el Kobo Glo:

- Desactivamos todos los plugin de Kobo menos el *Kobo Touch Extended*
- Creamos una columna *MyShelves* con identificador *#myshelves*
- En las opciones del plugin:
 - En la opción *Collection columns* añadimos las columnas *series,#myshelves*
 - Marcamos las opciones *Create collections* y *Delete empty collections*
 - *Update metadata on device* y *Set series information*

Algunos enlaces útiles:

- <https://github.com/jgoguen/calibre-kobo-driver>
- <http://www.lectoreselectronicos.com/foro/showthread.php?15116-Manual-de-instalaci%C3%B3n-y-uso-del-plugin-Kobo-Touch-Extended-para-Calibre>
- <http://www.redelijkheid.com/blog/2013/7/25/kobo-glo-ebook-library-management-with-calibre>
- <https://www.netogram.com/kobo.htm>

5.2 Pandoc

Instalado el Pandoc descargando paquete *deb* desde la página web del Pandoc.

Descargamos las plantillas desde [el repo](#) ejecutando los siguientes comandos:

```
cd ~/.pandoc
git clone https://github.com/jgm/pandoc-templates templates
```

5.3 Zotero

Zotero es un programa que te permite guardar una o varias bibliografías con referencias a libros, páginas web o documentos electrónicos.

Instalado el Zotero Standalone desde la [página web del programa](#)

5.4 Vanilla LaTeX

El LaTeX de Debian está un poquillo anticuado, si se quiere usar una versión reciente hay que aplicar [este truco](#).

```
cd ~
mkdir tmp
cd tmp
wget http://mirror.ctan.org/systems/texlive/tlnet/install-tl-unx.tar.gz
tar xzf install-tl-unx.tar.gz
cd install-tl-xxxxxx
```

La parte xxxxxx varía en función del estado de la última versión de LaTeX disponible.

```
sudo ./install-tl
```

Una vez lanzada la instalación podemos desmarcar las opciones que instalan la documentación y las fuentes. Eso nos obligará a consultar la documentación *on line* pero ahorrará prácticamente el 50% del espacio necesario. En mi caso sin *doc* ni *src* ocupa 2,3Gb

```
mkdir -p /opt
sudo ln -s /usr/local/texlive/2016/bin/* /opt/texbin
```

Por último para acabar la instalación añadimos **/opt/texbin** al *path*.

5.4.1 Falsificando paquetes

Ya tenemos el **texlive** instalado, ahora necesitamos que el gestor de paquetes sepa que ya lo tenemos instalado.

```
sudo apt-get install equivs --no-install-recommends
mkdir -p /tmp/tl-equivs && cd /tmp/tl-equivs
```

```
equivs-control texlive-local
```

Para hacerlo más fácil podemos descargarnos un fichero ya preparado, ejecutando:

```
wget http://www.tug.org/texlive/files/debian-equivs-2015-ex.txt  
/bin/cp -f debian-equivs-2015-ex.txt texlive-local
```

Editamos la versión y

```
equivs-build texlive-local  
sudo dpkg -i texlive-local_2015-1_all.deb
```

Todo listo, ahora podemos instalar cualquier paquete que dependa de texlive

5.4.2 Fuentes

Para dejar disponibles las fuentes opentype y truetype que vienen con texlive para el resto de aplicaciones:

```
sudo cp $(kpsewhich -var-value TEXMFSYSVAR)/fonts/conf/texlive-fontconfig.conf /etc/fonts/conf.d/09-te  
gksudo gedit /etc/fonts/conf.d/09-texlive.conf
```

Borramos la linea:

```
<dir>/usr/local/texlive/2016/texmf-dist/fonts/type1</dir>
```

Y ejecutamos:

```
sudo fc-cache -fsv
```

5.4.3 Actualizaciones

Para actualizar nuestro latex a la última versión de todos los paquetes:

```
sudo /opt/texbin/tlmgr update --self  
sudo /opt/texbin/tlmgr update --all
```

También podemos lanzar el instalador gráfico con:

```
sudo /opt/texbin/tlmgr --gui
```

Para usar el instalador gráfico hay que instalar previamente:

```
sudo apt-get install perl-tk --no-install-recommends
```

5.4.4 Lanzador para el actualizador de texlive

```
mkdir -p ~/.local/share/applications
/bin/rm ~/.local/share/applications/tlmgr.desktop
cat > ~/.local/share/applications/tlmgr.desktop << EOF
[Desktop Entry]
Version=1.0
Name=TeX Live Manager
Comment=Manage TeX Live packages
GenericName=Package Manager
Exec=gksu -d -S -D "TeX Live Manager" '/opt/texbin/tlmgr -gui'
Terminal=false
Type=Application
Icon=system-software-update
EOF
```

Ojo que hay que dejar instalado el gksu (aunque debería estar de antes si sigues este doc)

```
sudo aptitude install gksu
```

5.5 Emacs

Instalado emacs desde los repos:

```
sudo aptitude install emacs
```

Instalamos los paquetes *markdown-mode*, *markdown-plus* y *pandoc-mode* desde el menú de gestión de paquetes de **emacs**.

También instalamos *d-mode* y *flymake-d*. Hay una sección de configuración en el fichero *.emacs*.

Configuramos el fichero *.emacs* definimos algunas preferencias, algunas funciones útiles y añadimos orígenes extra de paquetes.

```
(custom-set-variables
;; custom-set-variables was added by Custom.
;; If you edit it by hand, you could mess it up, so be careful.
;; Your init file should contain only one such instance.
;; If there is more than one, they won't work right.
'(column-number-mode t)
'(show-paren-mode t))
(custom-set-faces
;; custom-set-faces was added by Custom.
```

```

;; If you edit it by hand, you could mess it up, so be careful.
;; Your init file should contain only one such instance.
;; If there is more than one, they won't work right.
'(default ((t (:family "Mensch" :foundry "bitstream" :slant normal :weight normal :height 128 :width
;;-----
;; Some settings
(setq inhibit-startup-message t) ; Eliminate FSF startup msg
(setq frame-title-format "%b")   ; Put filename in titlebar
(setq visible-bell t)            ; Flash instead of beep
(setq scroll-bar-mode 'right)     ; Scrollbar placement
(show-paren-mode t)             ; Blinking cursor shows matching parentheses
(setq column-number-mode t)      ; Show column number of current cursor location
(mouse-wheel-mode t)            ; wheel-mouse support

(setq fill-column 78)
(setq auto-fill-mode t)          ; Set line width to 78 columns...

(setq-default indent-tabs-mode nil) ; Insert spaces instead of tabs
(global-set-key "\r" 'newline-and-indent) ; turn autoindenting on
(set-default 'truncate-lines t)    ; Truncate lines for all buffers
(require 'iso-transl)

;;-----
;; Some useful key definitions
(define-key global-map [M-S-down-mouse-3] 'imenu)
(global-set-key [C-tab] 'hippie-expand) ; expand
(global-set-key [C-kp-subtract] 'undo) ; [Undo]
(global-set-key [C-kp-multiply] 'goto-line) ; goto line
(global-set-key [C-kp-add] 'toggle-truncate-lines) ; goto line
(global-set-key [C-kp-divide] 'delete-trailing-whitespace) ; delete trailing whitespace
(global-set-key [C-kp-decimal] 'completion-at-point) ; complete at point
(global-set-key [C-M-prior] 'next-buffer) ; next-buffer
(global-set-key [C-M-next] 'previous-buffer) ; previous-buffer

;;-----
;; Set encoding
(prefer-coding-system 'utf-8)
(setq coding-system-for-read 'utf-8)
(setq coding-system-for-write 'utf-8)

```

```
;;-----
;; Maximum colors
(cond ((fboundp 'global-font-lock-mode) ; Turn on font-lock (syntax highlighting)
      (global-font-lock-mode t)          ; in all modes that support it
      (setq font-lock-maximum-decoration t))) ; Maximum colors

;;-----
;; Use % to match various kinds of brackets...
;; See: http://www.lifl.fr/~hodique/uploads/Perso/patches.el

(global-set-key "%" 'match-paren)          ; % key match parents
(defun match-paren (arg)
  "Go to the matching paren if on a paren; otherwise insert %."
  (interactive "p")
  (let ((prev-char (char-to-string (preceding-char)))
        (next-char (char-to-string (following-char))))
    (cond ((string-match "[{(<]" next-char) (forward-sexp 1))
          ((string-match "[\\]}>]" prev-char) (backward-sexp 1))
          (t (self-insert-command (or arg 1))))))

;;-----
;; The wonderful bubble-buffer
(defvar LIMIT 1)
(defvar time 0)
(defvar mylist nil)

(defun time-now ()
  (car (cdr (current-time))))

(defun bubble-buffer ()
  (interactive)
  (if (or (> (- (time-now) time) LIMIT) (null mylist))
      (progn (setq mylist (copy-alist (buffer-list)))
             (delq (get-buffer " *Minibuf-0*") mylist)
             (delq (get-buffer " *Minibuf-1*") mylist)))
      (bury-buffer (car mylist))
      (setq mylist (cdr mylist))
      (setq newtop (car mylist))
      (switch-to-buffer (car mylist))
      (setq rest (cdr (copy-alist mylist))))
```



```

    (while rest
      (bury-buffer (car rest))
      (setq rest (cdr rest)))
    (setq time (time-now)))

(global-set-key [f8] 'bubble-buffer)    ; win-tab switch the buffer

(defun geosoft-kill-buffer ()
  ;; Kill default buffer without the extra emacs questions
  (interactive)
  (kill-buffer (buffer-name))
  (set-name))
(global-set-key [C-delete] 'geosoft-kill-buffer)

;;-----
;; MELPA and others
(when (>= emacs-major-version 24)
  (require 'package)
  (package-initialize)
  (add-to-list 'package-archives '("melpa" . "http://melpa.org/packages/") t)
  (add-to-list 'package-archives '("gnu" . "http://elpa.gnu.org/packages/") t)
  (add-to-list 'package-archives '("marmalade" . "https://marmalade-repo.org/packages/") t)
  )

;;-----
;; flymake installed from package

(require 'flymake)
(global-set-key (kbd "C-c d") 'flymake-display-err-menu-for-current-line)
(global-set-key (kbd "C-c n") 'flymake-goto-next-error)
(global-set-key (kbd "C-c p") 'flymake-goto-prev-error)

;; Activate flymake for D
(add-hook 'd-mode-hook 'flymake-d-load)

```

5.6 Scribus

Instalado con aptitude

```
sudo aptitude install scribus
```

5.7 Comix

Instalado con aptitude

```
sudo aptitude install comix
```

6 Desarrollo sw

6.1 Git

Instalado git desde aptitude

```
sudo aptitude install git
```

Configuración básica de **git**

```
git config --global user.name "Sergio Alvariño"
git config --global user.email "salvari@gmail.com"
git config --global core.editor emacs
git config --global color.ui true
git config --global credential.helper cache
git config --global credential.helper 'cache --timeout=7200'
git config --global push.default simple
git config --global alias.sla 'log --oneline --decorate --graph --all'
git config --global alias.car 'commit --amend --no-edit'
git config --global alias.unstage reset
git config --global alias.st status
git config --global alias.last 'log -1 HEAD'
git config --global alias.ca 'commit -a'
```

6.2 Paquetes esenciales

```
sudo apt-get install build-essential checkinstall make automake cmake autoconf git git-core dpkg wget
```

6.3 Open Java

```
apt-get install openjdk-7-jre icedtea-7-plugin
```

6.4 D-apt e instalación de programas

Configurado d-apt, instalados todos los programas incluidos

```
sudo wget http://master.dl.sourceforge.net/project/d-apt/files/d-apt.list -O /etc/apt/sources.list.d/d-apt.list
sudo apt-get update && sudo apt-get -y --allow-unauthenticated install --reinstall d-apt-keyring && sudo apt-get install d-apt
```

Instalamos todos los programas asociados.

```
sudo aptitude install dmd dub dcd dfix dfmt dscanner textadept
```

6.5 DCD

Una vez instalado el DCD tenemos que configurarlo creando el fichero `~/.config/dcd/dcd.conf` con el siguiente contenido:

```
/usr/include/dmd/druntime/import
/usr/include/dmd/phobos
```

Podemos probarlo con:

```
dcd-server &
echo | dcd-client --search toImpl
```

6.6 gdc

Instalado con

```
sudo aptitude install gdc
```

6.7 ldc

Instalado con:

```
sudo aptitude install ldc
```

Para poder ejecutar aplicaciones basadas en [Vibed](#), necesitamos instalar:

```
sudo apt-get install -y libssl-dev libevent-dev
```

6.8 Emacs para editar D

Instalados los siguientes paquetes desde *marmalade*

- *d-mode*
- *flymake-d*
- *auto-complete* (desde *melpa*)
- *ac-dcd*

Se configura en el fichero `~/.emacs`:

```
(require 'flymake)
(global-set-key (kbd "C-c d") 'flymake-display-err-menu-for-current-line)
(global-set-key (kbd "C-c n") 'flymake-goto-next-error)
(global-set-key (kbd "C-c p") 'flymake-goto-prev-error)

;; Define d-mode addons
;; Activate flymake for D
;; Activate auto-complete-mode
;; Activate yasnippet minor mode if available
;; Activate dcd-server
(require 'ac-dcd)
(add-hook 'd-mode-hook
  (lambda()
    (flymake-d-load)
    (auto-complete-mode t)
    (when (featurep 'yasnippet)
      (yas-minor-mode-on))
    (ac-dcd-maybe-start-server)
    (ac-dcd-add-imports)
    (add-to-list 'ac-sources 'ac-source-dcd)
    (define-key d-mode-map (kbd "C-c ?") 'ac-dcd-show-ddoc-with-buffer)
    (define-key d-mode-map (kbd "C-c .") 'ac-dcd-goto-definition)
    (define-key d-mode-map (kbd "C-c ,") 'ac-dcd-goto-def-pop-marker)
    (define-key d-mode-map (kbd "C-c s") 'ac-dcd-search-symbol)
    (when (featurep 'popwin)
      (add-to-list 'popwin:special-display-config
        `(:ac-dcd-error-buffer-name :noselect t))
      (add-to-list 'popwin:special-display-config
        `(:ac-dcd-document-buffer-name :position right :width 80))
      (add-to-list 'popwin:special-display-config
        `(:ac-dcd-search-symbol-buffer-name :position bottom :width 5))))))
```

```
;; Define diet template mode (this is not installed from package)
(add-to-list 'auto-mode-alist '("\\.dt$" . whitespace-mode))
(add-hook 'whitespace-mode-hook
  (lambda()
    (setq tab-width 2)
    (setq whitespace-line-column 250)
    (setq indent-tabs-mode nil)
    (setq indent-line-function 'insert-tab)))
```

6.8.1 Referencias

- <https://github.com/atilaneves/ac-dcd>
- <https://github.com/Hackerpilot/DCD>

6.9 Processing

Bajamos los paquetes de las respectivas páginas web, descomprimimos en *~/apps/* y creamos los desktop file con **Menulibre**

6.10 Openframeworks

Bajamos el paquete comprimido de la página web del proyecto.

Descomprimos en *~/apps*

Bajamos al directorio de la aplicación y ejecutamos:

```
sudo scripts/linux/debian/install_dependencies.sh
sudo scripts/linux/debian/install_codecs.sh
```

```
cd scripts/linux
./compileOF.sh -j2
```

```
cd OF/examples/graphics/polygonExample
make
make Run
```

```
cd OF/scripts/linux
./compilePG.sh
```

Va a instalar un montón de dependencias, hay que tomarlo con calma.

Al final también va a añadir una línea al fichero `~/.profile`

```
export PG_OF_PATH=/home/salvari/apps/of/of_v0.9.3_linux64_release
```

6.11 Python

De partida tenemos instalado dos versiones: *python* y *python3*

```
python -V
Python 2.7.9
```

```
python3 -V
Python 3.4.2
```

Instalado python-pip y python-virtualenv desde aptitude.

```
sudo aptitude install python-pip python-virtualenv virtualenv
```

Instalamos a mayores *Ananconda*, es la forma fácil de poder usar *ipython notebook*. De hecho me he instalado dos versiones la que incluye el python2 y la que incluye el python3.

Las instalaciones de *Anaconda* son redundantes, basta con instalar uno de ellos. En cualquier caso para realizar la instalación basta con descargar los scripts de instalación desde la página web de Anaconda.

```
bash Anaconda3-4.2.0-Linux-x86_64.sh
bash Anaconda2-4.2.0-Linux-x86_64.sh
```

Los he dejado instalados en `~/apps/anaconda2` y `~/apps/anaconda3`

Cada una de estas instalaciones incorpora su propia versión de Python. Para usarlas tenemos que cambiar nuestro PATH para que el Python deseado sea el primero que se selecciona.

Por ejemplo para activar anaconda3 en bash:

```
export PATH="~/apps/anaconda3/bin:$PATH"
```

Para hacer lo mismo en fish:

```
set -x PATH ~/apps/anaconda3/bin $PATH
```

6.11.1 iPython y GraphLab

Creamos un entorno conda con Python 2.7.x

```
conda create -n gl-env python=2.7 anaconda
```

Activamos el nuevo entorno (todo esto lo hice en bash, en fish hay un problemilla con el entorno conda [mas info](#))

```
bash
source activate gl-env
```

En el futuro esto es todo lo que tendremos que hacer activar el entorno conda donde estamos instalando el iPython.

Nos aseguramos de tener *pip* al dia:

```
conda update pip
```

Instalamos la biblioteca [GraphLab Create](#). Esta biblioteca se supone que es fácil de usar pero está sujeta a licencia.¹

Una vez registrado en la página web te pasan un número de registro que tienes que usar para instalar la biblioteca.

```
pip install --upgrade --no-cache-dir https://get.graphlab.com/GraphLab-Create/2.1/your_registered_email
```

Y para terminar instalamos iPython²:

```
conda install ipython-notebook
```

Desde ahora basta con activar el entorno que hemos creado para tener acceso al iPython.

```
source activate gl-env
```

```
ipython notebook
```

```
source deactivate gl-env
```

6.11.1.1 Instalación alternativa con virtualenv

```
# Create a virtual environment named e.g. gl-env
virtualenv gl-env
```

¹TODO: Pasarme a *scikit-learn*

²TODO: conda install jupyter

```
# Activate the virtual environment
source gl-env/bin/activate
```

```
# Make sure pip is up to date
pip install --upgrade pip
```

```
# Install IPython Notebook (optional)
pip install "ipython[notebook]"
```

```
# Install Jupyter Notebook (optional)
pip install "jupyter"
```

```
# Install your licensed copy of GraphLab Create
pip install --upgrade --no-cache-dir https://get.graphlab.com/GraphLab-Create/2.1/your_registered_email
```

6.11.2 Usar Emacs para editar Python

Instalamos *elpy* desde el gestor de paquetes de Emacs, concretamente desde el repo *marmalade*

Hay que habilitar *elpy* en el fichero **~/.emacs** para ello añadimos la linea
(elpy enable)

6.11.2.1 TODO

Estudiar esto con calma <https://elpy.readthedocs.io/en/latest>

7 Desarrollo hardware

7.1 Arduino IDE

Bajamos los paquetes de la página [web](#) , descomprimimos en *~/apps/arduino*.

Creamos un link al directorio del software que hemos descargado:

```
cd ~/apps/arduino
ln -s arduino-x.y.z current
```


La primera vez que instalamos será necesario crear el desktop file con **Menulibre** con las actualizaciones no será necesario, siempre y cuando apunte a `~/apps/arduino/current`

7.2 Pinguino IDE

Tenemos el paquete de instalación disponible en su página [web](#)

Ejecutamos el programa de instalación. El programa descargará los paquetes Debian necesarios para dejar el IDE y los compiladores instalados.

Al acabar la instalación he tenido que crear el directorio `~/Pinguino/v11`, parece que hay algún problema con el programa de instalación y no lo crea automáticamente.

El programa queda correctamente instalado en `/opt` y arranca correctamente, habrá que probarlo con los micros.

7.3 KiCAD

Instalamos desde *backports*:

```
sudo aptitude install -t jessie-backports kicad
```

Vamos a instalar a mayores algunas librerías de KiCAD, para poder crear Shields de Arduino.

- [Freetronics](#) una librería que no solo incluye Shield para Arduino sino una completa colección de componentes que nos permitirá hacer proyectos completos. [Freetronics](#) es una especie de BricoGeek australiano, publica tutoriales, vende componentes, y al parecer mantiene una biblioteca para KiCAD. La biblioteca de Freetronics se mantiene en un repo de github. Lo suyo es incorporarla a cada proyecto, por que si la actualizas se pueden romper los proyectos que estes haciendo.
- [eklablog](#) Esta biblioteca de componentes está incluida en el github de KiCAD, así que teoricamente no habría que instalarla en nuestro disco duro.

8 Virtualización

8.1 Docker

```
apt-get install apt-transport-https ca-certificates
```

```
apt-key adv --keyserver hkp://p80.pool.sks-keyservers.net:80 --recv-keys 58118E89F3A912897C070ADB7622
```

```
edit docker.list with
```

```
deb https://apt.dockerproject.org/repo debian-jessie main
```

```
apt-cache policy docker-engine -- comprobamos que todo está bien.
```

```
sudo apt-get install docker-engine -- da un error en makedev por udev activo
```

```
sudo service docker start
```

```
sudo docker run hello-world - todo bien
```

```
sudo gpasswd -a salvari docker
```

8.2 Virtualbox

Tenemos que:

- Añadir el fichero *virtualbox.list* al directorio */etc/apt/sources.list.d*
- Bajarnos y añadir a nuestro llavero las claves públicas de Oracle
- Actualizar la lista de paquetes
- Instalar virtualbox
- Añadir nuestro usuario al grupo vboxuser (no tengo claro que esto sea necesario)

```
echo "deb http://download.virtualbox.org/virtualbox/debian jessie contrib" | sudo tee  
/etc/apt/sources.list.d/virtualbox.list wget -q https://www.virtualbox.org/download/oracle_vbox_2016.asc  
-O- | sudo apt-key add - sudo apt-get update sudo apt-get install virtualbox-5.1 sudo  
gpasswd -a salvari vboxusers
```

Una vez instalado el virtualbox tenemos que instalarnos el pack de extensiones, es muy importante descargar el pack correspondiente a nuestra versión desde [la página web de descargas](#)

Sin más que hacer doble click en el fichero descargado lo instalaremos en nuestra instancia de *Virtualbox* (necesitamos la contraseña de administración).

8.3 Virtualizando un Windows 7

- 2 Gb de ram
- Create virtual hard disk

- 10Gb dynamically allocated
- Settings -> System->Boot Order: Quitamos el floppy
- Storage -> Add IDE Controller->Add Optical Disk -> Choose Disk -> ISO Image
- Instalamos Windows en Inglés y con teclado en español

Una vez instalado el SO Windows instalamos las Guest Additions.

9 Shells alternativos: zsh y fish

Los dos son muy interesantes. He usado zsh casi un año, ahora voy a probar **fish**.

9.1 fish

Instalamos **fish** desde aptitude con:

```
sudo aptitude install fish
```

Instalamos oh-my-fish

```
curl -L https://github.com/oh-my-fish/oh-my-fish/raw/master/bin/install > install
fish install
rm install
```

```
chsh -s `which fish`
```

9.2 zsh

Igualmente instalamos **zsh**:

```
sudo aptitude install zsh
```

Vamos a usar antigen así que nos lo clonamos en `~/apps/`

```
cd ~/apps
git clone https://github.com/zsh-users/antigen
```

Y editamos el fichero `~/zshrc` para que contenga:

```
source ~/apps/antigen/antigen.zsh
```

```
# Load the oh-my-zsh's library.
antigen use oh-my-zsh
```

```

# Bundles from the default repo (robbyrussell's oh-my-zsh).
antigen bundle git
antigen bundle command-not-found
antigen bundle autojump
antigen bundle extract
# antigen bundle heroku
# antigen bundle pip
# antigen bundle lein

# Syntax highlighting bundle.
antigen bundle zsh-users/zsh-syntax-highlighting

# git
antigen bundle arialdomartini/oh-my-git
antigen theme arialdomartini/oh-my-git-themes oppa-lana-style

# autosuggestions
antigen bundle tarruda/zsh-autosuggestions

# antigen theme agnoster

# Tell antigen that you're done.
antigen apply

# append to path
path+=('/home/salvari/apps/julia/current/bin/')
# prepend
# path=('/home/salvari/bin/' $path)
# export PATH

```

Antigen ya se encarga de descargar todo lo que queramos utilizar en zsh.

Nos queda arreglar las fuentes para que funcione correctamente la línea de estado en los repos de git. Necesitamos una fuente *Awesome*

9.3 Instalación de fuentes adicionales

Nos bajamos unas cuantas fuentes que soporten los iconos *Awesome*.

```
cd ~/tmp
git clone https://github.com/abertsch/Menlo-for-Powerline
git clone https://github.com/powerline/fonts

mkdir ~/.fonts
cp someFontFile ~/.fonts/
fc-cache -vf ~/.fonts/
```

10 Reprap

10.1 Sl1c3r

Descargamos el paquete binario desde la página web.

- Cambiar permisos en directorio */lib/vrt/*
- Instalado *lib-canberra-module* desde aptitude
- Es necesario instalar *freeglut*

10.2 OpenScad

Instalado desde aptitude.

10.3 Printrun

Descargamos desde github

10.4 Cura

Descargamos desde la pagina web

```
sudo aptitude install python3-pyqt5
sudo dpkg -i Cura-2.1.3-Linux.deb

sudo apt-get install python-serial python-wxgtk2.8 python-pyglet python-numpy \
cython python-libxml2 python-gobject python-dbus python-psutil python-cairosvg git

python setup.py build_ext --inplace
```

11 Aplicaciones Web

11.1 Servidor Web

11.1.1 Apache

Instalamos el paquete *apache2*

```
sudo aptitude install apache2
```

Si abrimos el navegador y visitamos <http://localhost/> veremos la página de Apache.

El directorio raíz por defecto de Apache en Debian es */var/www*, y el fichero de configuración principal es */etc/apache2/apache2.conf*. Hay ficheros de configuración adicionales en el directorio */etc/apache2* y sus subdirectorios. Por ejemplo:

- */etc/apache2/mods-enabled*
- */etc/apache2/sites-enabled*
- */etc/apache2/conf-enabled*

Además del Apache vamos a dejar instalado el *php5*

```
sudo aptitude install php5 libapache2-mod-php5
```

Hay que reiniciar el servicio: `sudo service apache2 restart`

Si creamos un fichero */var/www/html/info.php*, que contenga las líneas:

```
<?php
phpinfo();
?>
```

Podemos ver en el siguiente enlace <http://localhost/info.php> si el php funciona correctamente.

Módulos de php relacionados con mysql:

```
sudo aptitude install php5-mysqld php5-curl php5-gd php5-intl php-pear \
php5-imagick php5-imap php5-mcrypt php5-memcache php5-pspell php5-recode \
php5-snmp php5-sqlite php5-tidy php5-xmlrpc php5-xsl
```

11.1.2 nginx

TODO

11.2 Servidores de bases de datos

11.2.1 MySQL

Instalamos desde aptitude *mysql-server.5.6*

Opcionalmente (y muy recomendable)

mysql_secure_installation

11.2.1.1 Actualización

Cambiamos el fichero *mysql.conf.d/mysqld.cnf*

```
# max_allowed_packet      = 16M
max_allowed_packet = 500M
```

Reiniciamos el servicio:

```
/etc/init.d/mysql restart
```

11.2.2 Cliente SQL Squirrel SQL

Descargamos el paquete desde la página [web](#) y lo descomprimos en *~/apps*, también tendremos que descargar el conector de mysql para java, por ejemplo desde [aquí](#)

Una vez instalado, creamos el desktop-file con *MenuLibre* y configuramos el driver *MySQL* añadiendo el path a donde hayamos dejado el conector java.

11.2.3 MariaDB

PENDIENTE

12 Cuentas online abiertas

- google
- pocket (plugin de chrome)

13 Recetas varias

13.1 Orange Pi Zero

Para usar la Orange Pi Zero tendremos que crear imágenes arrancables en tarjetas micro SD.

13.1.1 Crear una SD arrancable

Dependiendo de donde conectemos la tarjeta tendremos que usar diferentes rutas. En el procedimiento descrito a continuación `${card}` será la ruta al dispositivo de la tarjeta y `${p}` la partición (si la hay).

Si la tarjeta se conecta vía adaptador USB, linux la va a asociar a un dispositivo `/dev/sdx`, por ejemplo en mi portátil el disco duro es `/dev/sda` las distintas particiones serán `/dev/sda1`, `/dev/sda2`, etc.

Si conectamos una memoria con un adaptador USB linux la podría mapear en `/dev/sdb` por ejemplo.

Si la memoria se conecta mediante una ranura SD, linux la asociará a un dispositivo `/dev/mmcblk0` o `/dev/mmcblk1`, etc. etc. Dependerá de la ranura usada. Las particiones en este tipo de dispositivos tienen rutas como por ejemplo `/dev/mmcblk0p1`.

Los datos se pueden almacenar directamente en la memoria SD o en una partición creada en la memoria.

Resumiendo:

- `${card}` será `/dev/sdb` o `/dev/mmcblk0`
- `card{p}` será `/dev/sdb1` o `/dev/mmcblk0p1`

Antes de seguir adelante hay que estar completamente seguro del dispositivo asociado a nuestra memoria SD para no armar ningún estropicio.

Hay varias comprobaciones que se pueden hacer:

`dmesg | tail` nos permitirá echar un ojo a los últimos mensajes en el log del sistema. Si acabamos de insertar la memoria veremos el dispositivo usado.

`sudo fdisk -l` nos permite ver las particiones montadas en nuestro linux, por ejemplo con mi SD en la ranura SD de mi portátil la salida es (entre otras cosas, he obviado las particiones de los discos duros):

```
Disk /dev/mmcblk0: 7.4 GiB, 7948206080 bytes, 15523840 sectors
Units: sectors of 1 * 512 = 512 bytes
```



```
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: 0x00000000
```

cat /proc/partitions también nos dará una lista de particiones, en mi portátil las que interesan son:

```
179          0    7761920 mmcblk0
179          1    7757824 mmcblk0p1
```

Descargamos la imagen de Jessie adaptada a la *Orange Pi Zero* desde la página <https://www.armbian.com/download/>

Descomprimos la imagen y la grabamos en la tarjeta SD con el comando:

```
sudo dd if=./Armbian_5.24_Orangezero_Debian_jessie_3.4.113.img of=/dev/mmcblk0
```

Insertamos la tarjeta en la *Orange Pi* y le damos alimentación. El primer arranque llevará alrededor de tres minutos, y tras ese tiempo aun hará falta un minuto más para poder hacer login. Este retardo es debido a que el sistema intentará actualizar la lista de paquetes y creará un area de swap de emergencia en la SD, y además cambiará el tamaño de la partición que hemos creado para ocupar todo el espacio libre en la SD.

De momento solo la he arrancado y efectivamente las particiones han cambiado tras el arranque así que tiene buena pinta.

Volvemos a insertar la SD en la *Orange Pi* y la conectamos con un cable ethernet al router de casa. El Armbian viene configurado por defecto para obtener su IP desde un servidor DHCP.

Como mi cutre-router no me da información de las IP asignadas usamos *nmap*:

```
nmap -sP 192.168.0.0 /24
```

Con eso averiguamos la IP asignada a la *Orange Pi Zero* y ya podemos hacer login con:

```
ssh root@192.168.0.109
```

¡Y ya estamos!

Lo primero es poner al día el sistema:

```
apt-get update
apt-get upgrade
```

Si quieres puedes reconfigurar el *time zone*:

```
dpkg-reconfigure tzdata
```

```
> ~/w/r/p/debianpostinstall on master x ssh root@192.168.0.109
The authenticity of host '192.168.0.109 (192.168.0.109)' can't be established.
ECDSA key fingerprint is 8a:22:e7:1c:d4:44:45:db:c0:90:4e:af:e9:d3:54:db.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '192.168.0.109' (ECDSA) to the list of known hosts.
root@192.168.0.109's password:
You are required to change your password immediately (root enforced)
```

A large, stylized logo for Armbian, featuring the word "Armbian" in a blue, outlined font where each letter is composed of geometric shapes like squares and circles.

```
Welcome to ARMBIAN Debian GNU/Linux 8 (jessie) 3.4.113-sun8i
System load:   0.16           Up time:       16 min
Memory usage:  17 % of 241Mb  IP:           192.168.0.109
CPU temp:      36°C
Usage of /:    14% of 7.2G
```

```
New to Armbian? Check the documentation first: docs.armbian.com

Changing password for root.
(current) UNIX password:
```

Figura 1: Primer login en *Orange Pi*

13.1.2 Conexión WIFI

Vamos a comprobar que todo va bien:

```
root@orangepizero:~# iwconfig
lo          no wireless extensions.

tunl0       no wireless extensions.

wlan0       IEEE 802.11bgn  ESSID:off/any
            Mode:Managed  Access Point: Not-Associated   Tx-Power=20 dBm
            Retry  long limit:7   RTS thr:off   Fragment thr:off
            Encryption key:off
            Power Management:on

eth0        no wireless extensions.
```

Todo tiene buena pinta, vamos a ver si detecta WIFIs:

```
root@orangepizero:~# iwlist wlan0 scan |grep ESSID
ESSID:"wificlientesR"
```

```
ESSID:"casa_de_verano"  
ESSID:"MOVISTAR_BEEF"  
ESSID:"wificlientesR"  
ESSID:"R-wlan90"  
ESSID:"MOVISTAR_BAAF"  
ESSID:"ababab"  
ESSID:"WLAN 77"  
ESSID:"castillo"  
ESSID:"unaWifi"  
ESSID:""  
ESSID:"mikasa"
```

Para configurar el wifi echamos un ojo al fichero `/etc/network/interfaces` pero en ese mismo fichero encontramos el aviso:

```
# Armbian ships with network-manager installed by default. To save you time  
# and hassles consider using 'sudo nmtui' instead of configuring Wi-Fi settings  
# manually.
```

Así que basta con ejecutar `sudo nmtui` y ya podemos dar de alta nuestra wifi (yo la prefiero con IP estática).

Ejecutamos `ifconfig` y ya vemos nuestro nuevo interface configurado:

```
ifconfig
```

```
wlan0    Link encap:Ethernet  HWaddr a4:7c:f2:9a:97:7c  
         inet addr:192.168.0.120  Bcast:192.168.0.255  Mask:255.255.255.0  
         inet6 addr: fe80::a67c:f2ff:fe9a:977c/64 Scope:Link  
         UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1  
         RX packets:2 errors:0 dropped:0 overruns:0 frame:0  
         TX packets:8 errors:0 dropped:0 overruns:0 carrier:0  
         collisions:0 txqueuelen:1000  
         RX bytes:328 (328.0 B)  TX bytes:852 (852.0 B)
```

13.1.3 Referencias

- [Página oficial](#)
- [Recursos oficiales](#) aquí hay imágenes y los esquemáticos
- [Tienda en Aliexpress](#)
- http://linux-sunxi.org/Bootable_SD_card
- <https://www.armbian.com/orange-pi-zero/>

Edit Connection

Profile name

mikasa

Device

WI-FI

SSID

mikasa

Mode

<Client>

Security

<WPA & WPA2 Personal>

Password

☐ Show password

BSSID

Cloned MAC address

MTU

(default)

IPv4 CONFIGURATION

<Manual>

<Hide>

Addresses

192.168.0.120/24

<Remove>

<Add...>

Gateway

192.168.0.1

DNS servers

8.8.8.8

<Remove>

4.4.4.4

<Remove>

<Add...>

Figura 2: Configuración WIFI

36

- https://docs.armbian.com/User-Guide_Getting-Started/
- https://docs.armbian.com/Hardware_Allwinner/
- **GPIO** Una explicación de como acceder al gpio desde terminal
- **Info variada** Aquí tenemos el esquema de pines

13.2 Raspberry Pi Media Center

Bajamos la imagen con nuestro cliente torrent favorito desde [aquí](#), no os molesteis en clonar el directorio, hay que bajarse la imagen.

```
sudo dd if=./Mediacenter-AikonCWD-v6.img of=/dev/mmcblk0 bs=4M
```

Arrancamos con la toma ethernet conectada al router y nos conectamos tras averiguar la IP con nmap (ver *Orange Pi Zero*)

```
Welcome to AikonCWD's Mediacenter V6
Last login: Thu Jul 21 00:01:37 2016
root@mediacenter-v6
OS: Raspbian
Kernel: armv7l Linux 4.4.15-v7+
Uptime: 3m
Packages: 1319
Shell: 1137
CPU: ARMv7 rev 4 (v7l) @ 1.2GHz
RAM: 99MB / 735MB
```

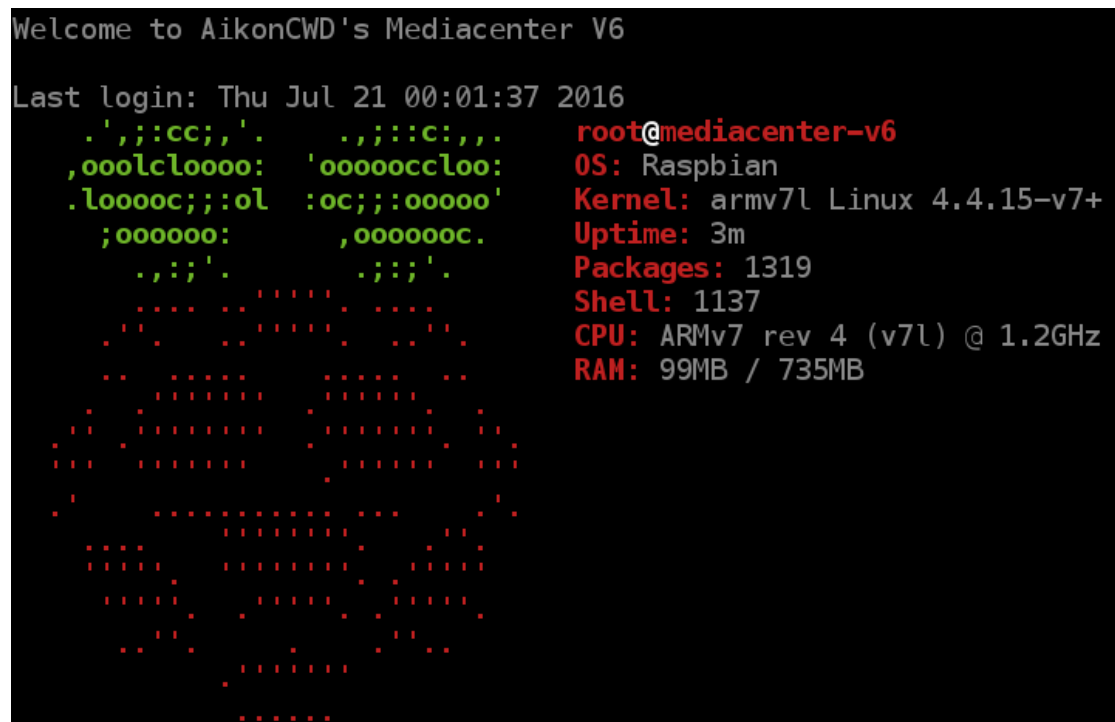


Figura 3: Primer login en Raspberry

Una vez instalado los pasos recomendados:

1. Cambiar la password de root: `passwd`
2. Fijar una IP estática: Editamos el fichero `/etc/dhcpd.conf`, ya de paso configuramos la IP estática para la WIFI

```
interface eth0
static ip_address=192.168.0.125/24
static routers=192.168.0.1
static domain_name_servers=8.8.8.8
```

```
interface wlan0
static ip_address=192.168.0.126/24
static routers=192.168.0.1
static domain_name_servers=8.8.8.8
```

Una vez cambiado el fichero hay que reiniciar con `shutdown -r now`

3. Configurar la WIFI, en esta parte damos por supuesto que tenemos la wifi con WPA activado.

Echamos un ojo a nuestro interfaz radio con `iwconfig`, si aparece el `wlan0` todo va bien.

```
wlan0      IEEE 802.11bgn  ESSID:off/any
          Mode:Managed  Access Point: Not-Associated  Tx-Power=31 dBm
          Retry short limit:7   RTS thr:off   Fragment thr:off
          Encryption key:off
          Power Management:on
```

Tenemos que editar el fichero `/etc/network/interfaces` y asegurarnos de tener el `wlan0` como sigue:

```
allow-hotplug wlan0
iface wlan0 inet manual
    wpa-conf /etc/wpa_supplicant/wpa_supplicant.conf
```

Ahora vamos a editar el fichero de configuración de `wpa_supplicant`, es decir `/etc/wpa_supplicant/wpa_supplicant.conf` y añadir un bloque `network` que sea como el que va a continuación, de paso he cambiado el `country` a "ES", así que queda así:

```
country=ES
ctrl_interface=DIR=/var/run/wpa_supplicant GROUP=netdev
update_config=1
network={
    ssid="YOURSSID"
    psk="YOURPASSWORD"
}
```

Un reinicio y listos: `shutdown -r now`

14 TODO

- cinelerra
- playonlinux
- krita
- mypaint
- qStopmotion
- chibios
 - [http://wiki.chibios.org/dokuwiki/doku.php?id=chibios:community:setup:openocd_chibios]
 - [<http://www.josho.org/blog/blog/2014/11/30/nucleo-gcc/>]
 - [<http://www.stevebate.net/chibios-rpi/GettingStarted.html>]
- ICE Studio
- Inkscape
 - <https://elizsarobhasa.makes.org/thimble/MTMwNDIzMjE5Mg==/3d-printing-from-a-2d-drawing>
 - Instalar tb jessyink
- rclone <https://syncthing.net/>
- vmware (no creo, virtualbox va genial)
- Astronomía

15 Links

- [Systemd](#)
- [Gnome shortcuts](#)
- [Gnome optimizaciones](#)
- [Instalación Debian](#)
- [zsh](#)
- [zsh](#)
- <https://www.roaringpenguin.com/products/remind>
- <http://taskwarrior.org/>

16 Licencia

Attribution-ShareAlike 4.0 International

=====

Creative Commons Corporation ("Creative Commons") is not a law firm and does not provide legal services or legal advice. Distribution of Creative Commons public licenses does not create a lawyer-client or other relationship. Creative Commons makes its licenses and related information available on an "as-is" basis. Creative Commons gives no warranties regarding its licenses, any material licensed under their terms and conditions, or any related information. Creative Commons disclaims all liability for damages resulting from their use to the fullest extent possible.

Using Creative Commons Public Licenses

Creative Commons public licenses provide a standard set of terms and conditions that creators and other rights holders may use to share original works of authorship and other material subject to copyright and certain other rights specified in the public license below. The following considerations are for informational purposes only, are not exhaustive, and do not form part of our licenses.

Considerations for licensors: Our public licenses are intended for use by those authorized to give the public permission to use material in ways otherwise restricted by copyright and certain other rights. Our licenses are irrevocable. Licensors should read and understand the terms and conditions of the license they choose before applying it. Licensors should also secure all rights necessary before applying our licenses so that the public can reuse the material as expected. Licensors should clearly mark any material not subject to the license. This includes other CC-licensed material, or material used under an exception or limitation to copyright. More considerations for licensors: wiki.creativecommons.org/Considerations_for_licensors

Considerations for the public: By using one of our public licenses, a licensor grants the public permission to use the licensed material under specified terms and conditions. If the licensor's permission is not necessary for any reason--for example, because of any applicable exception or limitation to copyright--then that use is not regulated by the license. Our licenses grant only permissions under copyright and certain

other rights that a licensor has authority to grant. Use of the licensed material may still be restricted for other reasons, including because others have copyright or other rights in the material. A licensor may make special requests, such as asking that all changes be marked or described. Although not required by our licenses, you are encouraged to respect those requests where reasonable. More considerations for the public:

wiki.creativecommons.org/Considerations_for_licensees

=====

Creative Commons Attribution-ShareAlike 4.0 International Public License

By exercising the Licensed Rights (defined below), You accept and agree to be bound by the terms and conditions of this Creative Commons Attribution-ShareAlike 4.0 International Public License ("Public License"). To the extent this Public License may be interpreted as a contract, You are granted the Licensed Rights in consideration of Your acceptance of these terms and conditions, and the Licensor grants You such rights in consideration of benefits the Licensor receives from making the Licensed Material available under these terms and conditions.

Section 1 -- Definitions.

- a. Adapted Material means material subject to Copyright and Similar Rights that is derived from or based upon the Licensed Material and in which the Licensed Material is translated, altered, arranged, transformed, or otherwise modified in a manner requiring permission under the Copyright and Similar Rights held by the Licensor. For purposes of this Public License, where the Licensed Material is a musical work, performance, or sound recording, Adapted Material is always produced where the Licensed Material is synched in timed relation with a moving image.
- b. Adapter's License means the license You apply to Your Copyright and Similar Rights in Your contributions to Adapted Material in

accordance with the terms and conditions of this Public License.

- c. BY-SA Compatible License means a license listed at creativecommons.org/compatiblelicenses, approved by Creative Commons as essentially the equivalent of this Public License.
- d. Copyright and Similar Rights means copyright and/or similar rights closely related to copyright including, without limitation, performance, broadcast, sound recording, and Sui Generis Database Rights, without regard to how the rights are labeled or categorized. For purposes of this Public License, the rights specified in Section 2(b)(1)-(2) are not Copyright and Similar Rights.
- e. Effective Technological Measures means those measures that, in the absence of proper authority, may not be circumvented under laws fulfilling obligations under Article 11 of the WIPO Copyright Treaty adopted on December 20, 1996, and/or similar international agreements.
- f. Exceptions and Limitations means fair use, fair dealing, and/or any other exception or limitation to Copyright and Similar Rights that applies to Your use of the Licensed Material.
- g. License Elements means the license attributes listed in the name of a Creative Commons Public License. The License Elements of this Public License are Attribution and ShareAlike.
- h. Licensed Material means the artistic or literary work, database, or other material to which the Licensor applied this Public License.
- i. Licensed Rights means the rights granted to You subject to the terms and conditions of this Public License, which are limited to all Copyright and Similar Rights that apply to Your use of the Licensed Material and that the Licensor has authority to license.
- j. Licensor means the individual(s) or entity(ies) granting rights under this Public License.

- k. Share means to provide material to the public by any means or process that requires permission under the Licensed Rights, such as reproduction, public display, public performance, distribution, dissemination, communication, or importation, and to make material available to the public including in ways that members of the public may access the material from a place and at a time individually chosen by them.
- l. Sui Generis Database Rights means rights other than copyright resulting from Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases, as amended and/or succeeded, as well as other essentially equivalent rights anywhere in the world.
- m. You means the individual or entity exercising the Licensed Rights under this Public License. Your has a corresponding meaning.

Section 2 -- Scope.

- a. License grant.
 - 1. Subject to the terms and conditions of this Public License, the Licensor hereby grants You a worldwide, royalty-free, non-sublicensable, non-exclusive, irrevocable license to exercise the Licensed Rights in the Licensed Material to:
 - a. reproduce and Share the Licensed Material, in whole or in part; and
 - b. produce, reproduce, and Share Adapted Material.
 - 2. Exceptions and Limitations. For the avoidance of doubt, where Exceptions and Limitations apply to Your use, this Public License does not apply, and You do not need to comply with its terms and conditions.
 - 3. Term. The term of this Public License is specified in Section 6(a).

4. Media and formats; technical modifications allowed. The Licensor authorizes You to exercise the Licensed Rights in all media and formats whether now known or hereafter created, and to make technical modifications necessary to do so. The Licensor waives and/or agrees not to assert any right or authority to forbid You from making technical modifications necessary to exercise the Licensed Rights, including technical modifications necessary to circumvent Effective Technological Measures. For purposes of this Public License, simply making modifications authorized by this Section 2(a)(4) never produces Adapted Material.
5. Downstream recipients.
 - a. Offer from the Licensor -- Licensed Material. Every recipient of the Licensed Material automatically receives an offer from the Licensor to exercise the Licensed Rights under the terms and conditions of this Public License.
 - b. Additional offer from the Licensor -- Adapted Material. Every recipient of Adapted Material from You automatically receives an offer from the Licensor to exercise the Licensed Rights in the Adapted Material under the conditions of the Adapter's License You apply.
 - c. No downstream restrictions. You may not offer or impose any additional or different terms or conditions on, or apply any Effective Technological Measures to, the Licensed Material if doing so restricts exercise of the Licensed Rights by any recipient of the Licensed Material.
6. No endorsement. Nothing in this Public License constitutes or may be construed as permission to assert or imply that You are, or that Your use of the Licensed Material is, connected with, or sponsored, endorsed, or granted official status by, the Licensor or others designated to receive attribution as provided in Section 3(a)(1)(A)(i).

b. Other rights.

1. Moral rights, such as the right of integrity, are not licensed under this Public License, nor are publicity, privacy, and/or other similar personality rights; however, to the extent possible, the Licensor waives and/or agrees not to assert any such rights held by the Licensor to the limited extent necessary to allow You to exercise the Licensed Rights, but not otherwise.
2. Patent and trademark rights are not licensed under this Public License.
3. To the extent possible, the Licensor waives any right to collect royalties from You for the exercise of the Licensed Rights, whether directly or through a collecting society under any voluntary or waivable statutory or compulsory licensing scheme. In all other cases the Licensor expressly reserves any right to collect such royalties.

Section 3 -- License Conditions.

Your exercise of the Licensed Rights is expressly made subject to the following conditions.

a. Attribution.

1. If You Share the Licensed Material (including in modified form), You must:
 - a. retain the following if it is supplied by the Licensor with the Licensed Material:
 - i. identification of the creator(s) of the Licensed Material and any others designated to receive attribution, in any reasonable manner requested by the Licensor (including by pseudonym if designated);

- ii. a copyright notice;
 - iii. a notice that refers to this Public License;
 - iv. a notice that refers to the disclaimer of warranties;
 - v. a URI or hyperlink to the Licensed Material to the extent reasonably practicable;
 - b. indicate if You modified the Licensed Material and retain an indication of any previous modifications; and
 - c. indicate the Licensed Material is licensed under this Public License, and include the text of, or the URI or hyperlink to, this Public License.
2. You may satisfy the conditions in Section 3(a)(1) in any reasonable manner based on the medium, means, and context in which You Share the Licensed Material. For example, it may be reasonable to satisfy the conditions by providing a URI or hyperlink to a resource that includes the required information.
 3. If requested by the Licensor, You must remove any of the information required by Section 3(a)(1)(A) to the extent reasonably practicable.

b. ShareAlike.

In addition to the conditions in Section 3(a), if You Share Adapted Material You produce, the following conditions also apply.

1. The Adapter's License You apply must be a Creative Commons license with the same License Elements, this version or later, or a BY-SA Compatible License.
2. You must include the text of, or the URI or hyperlink to, the Adapter's License You apply. You may satisfy this condition in any reasonable manner based on the medium, means, and

context in which You Share Adapted Material.

3. You may not offer or impose any additional or different terms or conditions on, or apply any Effective Technological Measures to, Adapted Material that restrict exercise of the rights granted under the Adapter's License You apply.

Section 4 -- Sui Generis Database Rights.

Where the Licensed Rights include Sui Generis Database Rights that apply to Your use of the Licensed Material:

- a. for the avoidance of doubt, Section 2(a)(1) grants You the right to extract, reuse, reproduce, and Share all or a substantial portion of the contents of the database;
- b. if You include all or a substantial portion of the database contents in a database in which You have Sui Generis Database Rights, then the database in which You have Sui Generis Database Rights (but not its individual contents) is Adapted Material, including for purposes of Section 3(b); and
- c. You must comply with the conditions in Section 3(a) if You Share all or a substantial portion of the contents of the database.

For the avoidance of doubt, this Section 4 supplements and does not replace Your obligations under this Public License where the Licensed Rights include other Copyright and Similar Rights.

Section 5 -- Disclaimer of Warranties and Limitation of Liability.

- a. UNLESS OTHERWISE SEPARATELY UNDERTAKEN BY THE LICENSOR, TO THE EXTENT POSSIBLE, THE LICENSOR OFFERS THE LICENSED MATERIAL AS-IS AND AS-AVAILABLE, AND MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE LICENSED MATERIAL, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHER. THIS INCLUDES, WITHOUT LIMITATION, WARRANTIES OF TITLE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, ABSENCE OF LATENT OR OTHER DEFECTS,

ACCURACY, OR THE PRESENCE OR ABSENCE OF ERRORS, WHETHER OR NOT KNOWN OR DISCOVERABLE. WHERE DISCLAIMERS OF WARRANTIES ARE NOT ALLOWED IN FULL OR IN PART, THIS DISCLAIMER MAY NOT APPLY TO YOU.

- b. TO THE EXTENT POSSIBLE, IN NO EVENT WILL THE LICENSOR BE LIABLE TO YOU ON ANY LEGAL THEORY (INCLUDING, WITHOUT LIMITATION, NEGLIGENCE) OR OTHERWISE FOR ANY DIRECT, SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY, OR OTHER LOSSES, COSTS, EXPENSES, OR DAMAGES ARISING OUT OF THIS PUBLIC LICENSE OR USE OF THE LICENSED MATERIAL, EVEN IF THE LICENSOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES, COSTS, EXPENSES, OR DAMAGES. WHERE A LIMITATION OF LIABILITY IS NOT ALLOWED IN FULL OR IN PART, THIS LIMITATION MAY NOT APPLY TO YOU.
- c. The disclaimer of warranties and limitation of liability provided above shall be interpreted in a manner that, to the extent possible, most closely approximates an absolute disclaimer and waiver of all liability.

Section 6 -- Term and Termination.

- a. This Public License applies for the term of the Copyright and Similar Rights licensed here. However, if You fail to comply with this Public License, then Your rights under this Public License terminate automatically.
- b. Where Your right to use the Licensed Material has terminated under Section 6(a), it reinstates:
 - 1. automatically as of the date the violation is cured, provided it is cured within 30 days of Your discovery of the violation; or
 - 2. upon express reinstatement by the Licensor.

For the avoidance of doubt, this Section 6(b) does not affect any right the Licensor may have to seek remedies for Your violations of this Public License.

- c. For the avoidance of doubt, the Licensor may also offer the Licensed Material under separate terms or conditions or stop distributing the Licensed Material at any time; however, doing so will not terminate this Public License.
- d. Sections 1, 5, 6, 7, and 8 survive termination of this Public License.

Section 7 -- Other Terms and Conditions.

- a. The Licensor shall not be bound by any additional or different terms or conditions communicated by You unless expressly agreed.
- b. Any arrangements, understandings, or agreements regarding the Licensed Material not stated herein are separate from and independent of the terms and conditions of this Public License.

Section 8 -- Interpretation.

- a. For the avoidance of doubt, this Public License does not, and shall not be interpreted to, reduce, limit, restrict, or impose conditions on any use of the Licensed Material that could lawfully be made without permission under this Public License.
- b. To the extent possible, if any provision of this Public License is deemed unenforceable, it shall be automatically reformed to the minimum extent necessary to make it enforceable. If the provision cannot be reformed, it shall be severed from this Public License without affecting the enforceability of the remaining terms and conditions.
- c. No term or condition of this Public License will be waived and no failure to comply consented to unless expressly agreed to by the Licensor.
- d. Nothing in this Public License constitutes or may be interpreted as a limitation upon, or waiver of, any privileges and immunities that apply to the Licensor or You, including from the legal

processes of any jurisdiction or authority.

=====

Creative Commons is not a party to its public licenses. Notwithstanding, Creative Commons may elect to apply one of its public licenses to material it publishes and in those instances will be considered the "Licensor." The text of the Creative Commons public licenses is dedicated to the public domain under the CC0 Public Domain Dedication. Except for the limited purpose of indicating that material is shared under a Creative Commons public license or as otherwise permitted by the Creative Commons policies published at creativecommons.org/policies, Creative Commons does not authorize the use of the trademark "Creative Commons" or any other trademark or logo of Creative Commons without its prior written consent including, without limitation, in connection with any unauthorized modifications to any of its public licenses or any other arrangements, understandings, or agreements concerning use of licensed material. For the avoidance of doubt, this paragraph does not form part of the public licenses.

Creative Commons may be contacted at creativecommons.org.