## CUBOTino micro: Printouts during the Raspberry Pi installation

## Notes:

- on a Raspberry Pi ZeroW, with user set as "pi", not preferable
- highlighted in yellow the necessary inputs

login as: pi pi@192.168.2.58's password: \_\_\_\_\_\_ Linux cubotino 5.10.103+ #1529 Tue Mar 8 12:19:18 GMT 2022 armv6l

The programs included with the Debian GNU/Linux system are free software; the exact distribution terms for each program are described in the individual files in /usr/share/doc/\*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.

Last login: Tue Feb 21 04:30:25 2023

SSH is enabled and the default password for the 'pi' user has not been changed. This is a security risk - please login as the 'pi' user and type 'passwd' to set a new password.

pi@cubotino:~ \$ git clone https://github.com/AndreaFavero71/cubotino\_micro.git

Cloning into 'cubotino\_micro'...

remote: Enumerating objects: 199, done.

remote: Counting objects: 100% (158/158), done. remote: Compressing objects: 100% (131/131), done.

remote: Total 199 (delta 56), reused 73 (delta 15), pack-reused 41 Receiving objects: 100% (199/199), 116.60 MiB | 980.00 KiB/s, done.

Resolving deltas: 100% (59/59), done. Checking out files: 100% (67/67), done.

pi@cubotino:~ \$ cd cubotino\_micro/src pi@cubotino:~/cubotino\_micro/src \$ sudo ./install/setup.sh

Deactivating graphical login

configuring config file

Updating packages

Get:1 http://archive.raspberrypi.org/debian buster InRelease [32.6 kB]

Get:2 http://raspbian.raspberrypi.org/raspbian buster InRelease [15.0 kB]

Get:3 http://archive.raspberrypi.org/debian buster/main armhf Packages [392 kB]

Get:4 http://raspbian.raspberrypi.org/raspbian buster/main armhf Packages [13.0 MB]

```
Fetched 13.5 MB in 29s (461 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
13 packages can be upgraded. Run 'apt list --upgradable' to see them.
The following packages will be upgraded:
 curl git git-man libcurl3-gnutls libcurl4 libmariadb3 libtiff5 mariadb-common python-cryptography python-
werkzeug python3-cryptography python3-werkzeug wireless-regdb
13 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Need to get 7,875 kB of archives.
After this operation, 14.3 kB of additional disk space will be used.
apt-listchanges: Reading changelogs...
(Reading database ... 98848 files and directories currently installed.)
Preparing to unpack .../00-curl_7.64.0-4+deb10u5_armhf.deb ...
Unpacking curl (7.64.0-4+deb10u5) over (7.64.0-4+deb10u4) ...
Preparing to unpack .../01-libcurl4_7.64.0-4+deb10u5_armhf.deb ...
Unpacking libcurl4:armhf (7.64.0-4+deb10u5) over (7.64.0-4+deb10u4) ...
Preparing to unpack .../02-git-man 1%3a2.20.1-2+deb10u8 all.deb ...
Unpacking git-man (1:2.20.1-2+deb10u8) over (1:2.20.1-2+deb10u7) ...
Preparing to unpack .../03-libcurl3-gnutls_7.64.0-4+deb10u5_armhf.deb ...
Unpacking libcurl3-gnutls:armhf (7.64.0-4+deb10u5) over (7.64.0-4+deb10u4) ...
Preparing to unpack .../04-git_1%3a2.20.1-2+deb10u8_armhf.deb ...
Unpacking git (1:2.20.1-2+deb10u8) over (1:2.20.1-2+deb10u7) ...
Preparing to unpack .../05-mariadb-common 1%3a10.3.38-0+deb10u1 all.deb ...
Unpacking mariadb-common (1:10.3.38-0+deb10u1) over (1:10.3.36-0+deb10u2) ...
Preparing to unpack .../06-libmariadb3_1%3a10.3.38-0+deb10u1_armhf.deb ...
Unpacking libmariadb3:armhf (1:10.3.38-0+deb10u1) over (1:10.3.36-0+deb10u2) ...
Preparing to unpack .../07-libtiff5_4.1.0+git191117-2~deb10u7_armhf.deb ...
Unpacking libtiff5:armhf (4.1.0+git191117-2~deb10u7) over (4.1.0+git191117-2~deb10u6) ...
Preparing to unpack .../08-python-cryptography 2.6.1-3+deb10u4 armhf.deb ...
Unpacking python-cryptography (2.6.1-3+deb10u4) over (2.6.1-3+deb10u2) ...
Preparing to unpack .../09-python-werkzeug_0.14.1+dfsg1-4+deb10u2_all.deb ...
Unpacking python-werkzeug (0.14.1+dfsg1-4+deb10u2) over (0.14.1+dfsg1-4+deb10u1) ...
Preparing to unpack .../10-python3-cryptography_2.6.1-3+deb10u4_armhf.deb ...
Unpacking python3-cryptography (2.6.1-3+deb10u4) over (2.6.1-3+deb10u2) ...
Preparing to unpack .../11-python3-werkzeug 0.14.1+dfsg1-4+deb10u2 all.deb ...
Unpacking python3-werkzeug (0.14.1+dfsg1-4+deb10u2) over (0.14.1+dfsg1-4+deb10u1) ...
Preparing to unpack .../12-wireless-regdb_2022.04.08-2~deb10u1_all.deb ...
Unpacking wireless-regdb (2022.04.08-2~deb10u1) over (2018.05.09-0~rpt1) ...
Setting up python-werkzeug (0.14.1+dfsg1-4+deb10u2) ...
Setting up wireless-regdb (2022.04.08-2~deb10u1) ...
update-alternatives: using /lib/firmware/regulatory.db-debian to provide /lib/firmware/regulatory.db
(regulatory.db) in auto mode
Setting up python-cryptography (2.6.1-3+deb10u4) ...
Setting up libcurl3-gnutls:armhf (7.64.0-4+deb10u5) ...
Setting up mariadb-common (1:10.3.38-0+deb10u1) ...
Setting up python3-werkzeug (0.14.1+dfsg1-4+deb10u2) ...
Setting up python3-cryptography (2.6.1-3+deb10u4) ...
Setting up libmariadb3:armhf (1:10.3.38-0+deb10u1) ...
Setting up libcurl4:armhf (7.64.0-4+deb10u5) ...
Setting up git-man (1:2.20.1-2+deb10u8) ...
```

```
Setting up libtiff5:armhf (4.1.0+git191117-2~deb10u7) ...
Setting up curl (7.64.0-4+deb10u5) ...
Setting up git (1:2.20.1-2+deb10u8) ...
Processing triggers for man-db (2.8.5-2) ...
Processing triggers for libc-bin (2.28-10+rpt2+rpi1+deb10u1) ...
Removing old packages
The following packages were automatically installed and are no longer required:
 librtimulib-dev librtimulib-utils librtimulib7 python-olefile python-pil python-rtimulib python-sense-hat
python3-rtimulib
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
 python3-microdotphat python3-numpy python3-pgzero python3-picamera python3-pygame python3-
scrollphathd python3-sense-hat python3-unicornhathd sense-hat
0 upgraded, 0 newly installed, 9 to remove and 0 not upgraded.
After this operation, 13.9 MB disk space will be freed.
(Reading database ... 98850 files and directories currently installed.)
Removing python3-microdotphat (0.2.1) ...
Removing python3-unicornhathd (0.0.4) ...
Removing python3-pgzero (1.2.post4+dfsg-2+~rpt1) ...
Removing python3-pygame (1.9.4.post1+dfsg-3) ...
Removing sense-hat (1.2) ...
Removing python3-sense-hat (2.4.0-1~bpo10+1) ...
Removing python3-picamera (1.13) ...
Removing python3-scrollphathd (1.2.1) ...
Removing python3-numpy (1:1.16.2-1) ...
Processing triggers for man-db (2.8.5-2) ...
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages will be REMOVED:
 librtimulib-dev librtimulib-utils librtimulib7 python-olefile python-pil python-rtimulib python-sense-hat
python3-rtimulib
0 upgraded, 0 newly installed, 8 to remove and 0 not upgraded.
After this operation, 2,344 kB disk space will be freed.
(Reading database ... 98171 files and directories currently installed.)
Removing librtimulib-dev (7.2.1-5) ...
Removing librtimulib-utils (7.2.1-5) ...
Removing python3-rtimulib (7.2.1-5) ...
Removing python-sense-hat (2.2.0-1) ...
Removing python-rtimulib (7.2.1-5) ...
Removing librtimulib7 (7.2.1-5) ...
Removing python-olefile (0.46-1) ...
Removing python-pil:armhf (5.4.1-2+deb10u3) ...
Processing triggers for libc-bin (2.28-10+rpt2+rpi1+deb10u1) ...
Installing required packages
python3-pil is already the newest version (5.4.1-2+deb10u3).
python3-pil set to manually installed.
```

```
python3-venv is already the newest version (3.7.3-1).
python3-venv set to manually installed.
python3-gpiozero is already the newest version (1.6.2-1).
python3-pigpio is already the newest version (1.79-1+rpt1).
python3-pip is already the newest version (18.1-5+rpt1).
python3-rpi.gpio is already the newest version (0.7.0-0.1~bpo10+4).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
The following additional packages will be installed:
 freeglut3 libaec0 libatlas3-base libaudio2 libglu1-mesa libhdf5-103 libjasper1 libjpeg8 libmng1 libgt4-dbus
libqt4-xml libqtcore4 libqtdbus4 libsz2 python3-numpy qdbus qt-at-spi
 qtchooser qtcore4-l10n
Suggested packages:
 libatlas-doc liblapack-doc nas libicu57 qt4-qtconfig python-h5py-doc gfortran python-numpy-doc python3-
pytest python3-numpy-dbg
The following NEW packages will be installed:
 freeglut3 libaec0 libatlas-base-dev libatlas3-base libaudio2 libglu1-mesa libhdf5-103 libjasper-runtime
libjasper1 libjpeg8 libmng1 libqt4-dbus libqt4-test libqt4-xml libqtcore4
 libqtdbus4 libqtgui4 libsz2 python3-h5py python3-numpy qdbus qt-at-spi qtchooser qtcore4-l10n
0 upgraded, 24 newly installed, 0 to remove and 0 not upgraded.
Need to get 16.1 MB of archives.
After this operation, 76.7 MB of additional disk space will be used.
Selecting previously unselected package libjasper1:armhf.
(Reading database ... 97969 files and directories currently installed.)
Preparing to unpack .../00-libjasper1_1.900.1-debian1-2.4+deb8u1_armhf.deb ...
Unpacking libjasper1:armhf (1.900.1-debian1-2.4+deb8u1) ...
Selecting previously unselected package libjpeg8:armhf.
Preparing to unpack .../01-libjpeg8 8d1-2 armhf.deb ...
Unpacking libjpeg8:armhf (8d1-2) ...
Selecting previously unselected package libmng1:armhf.
Preparing to unpack .../02-libmng1 1.0.10+dfsg-3.1 armhf.deb ...
Unpacking libmng1:armhf (1.0.10+dfsg-3.1) ...
Selecting previously unselected package freeglut3:armhf.
Preparing to unpack .../03-freeglut3 2.8.1-3 armhf.deb ...
Unpacking freeglut3:armhf (2.8.1-3) ...
Selecting previously unselected package libaec0:armhf.
Preparing to unpack .../04-libaec0 1.0.2-1 armhf.deb ...
Unpacking libaec0:armhf (1.0.2-1) ...
Selecting previously unselected package libatlas3-base:armhf.
Preparing to unpack .../05-libatlas3-base 3.10.3-8+rpi1 armhf.deb ...
Unpacking libatlas3-base:armhf (3.10.3-8+rpi1) ...
Selecting previously unselected package libatlas-base-dev:armhf.
Preparing to unpack .../06-libatlas-base-dev_3.10.3-8+rpi1_armhf.deb ...
Unpacking libatlas-base-dev:armhf (3.10.3-8+rpi1) ...
Selecting previously unselected package libaudio2:armhf.
Preparing to unpack .../07-libaudio2_1.9.4-6_armhf.deb ...
Unpacking libaudio2:armhf (1.9.4-6) ...
Selecting previously unselected package libglu1-mesa:armhf.
Preparing to unpack .../08-libglu1-mesa_9.0.0-2.1_armhf.deb ...
Unpacking libglu1-mesa:armhf (9.0.0-2.1) ...
Selecting previously unselected package libsz2:armhf.
```

Preparing to unpack .../09-libsz2\_1.0.2-1\_armhf.deb ...

```
Unpacking libsz2:armhf (1.0.2-1) ...
Selecting previously unselected package libhdf5-103:armhf.
Preparing to unpack .../10-libhdf5-103_1.10.4+repack-10_armhf.deb ...
Unpacking libhdf5-103:armhf (1.10.4+repack-10) ...
Selecting previously unselected package libjasper-runtime.
Preparing to unpack .../11-libjasper-runtime 1.900.1-debian1-2.4+deb8u1 armhf.deb ...
Unpacking libjasper-runtime (1.900.1-debian1-2.4+deb8u1) ...
Selecting previously unselected package qtcore4-l10n.
Preparing to unpack .../12-qtcore4-l10n 4%3a4.8.7+dfsg-18+rpi1+deb10u1 all.deb ...
Unpacking qtcore4-l10n (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Selecting previously unselected package libqtcore4:armhf.
Preparing to unpack .../13-libqtcore4 4%3a4.8.7+dfsg-18+rpi1+deb10u1 armhf.deb ...
Unpacking libqtcore4:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Selecting previously unselected package libqt4-xml:armhf.
Preparing to unpack .../14-libqt4-xml 4%3a4.8.7+dfsg-18+rpi1+deb10u1 armhf.deb ...
Unpacking libqt4-xml:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Selecting previously unselected package libqtdbus4:armhf.
Preparing to unpack .../15-libqtdbus4 4%3a4.8.7+dfsg-18+rpi1+deb10u1 armhf.deb ...
Unpacking libqtdbus4:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Selecting previously unselected package qtchooser.
Preparing to unpack .../16-qtchooser 66-2 armhf.deb ...
Unpacking qtchooser (66-2) ...
Selecting previously unselected package qdbus.
Preparing to unpack .../17-qdbus 4%3a4.8.7+dfsg-18+rpi1+deb10u1 armhf.deb ...
Unpacking qdbus (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Selecting previously unselected package libqt4-dbus:armhf.
Preparing to unpack .../18-libqt4-dbus 4%3a4.8.7+dfsg-18+rpi1+deb10u1 armhf.deb ...
Unpacking libqt4-dbus:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Selecting previously unselected package libqt4-test:armhf.
Preparing to unpack .../19-libqt4-test 4%3a4.8.7+dfsg-18+rpi1+deb10u1 armhf.deb ...
Unpacking libqt4-test:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Selecting previously unselected package libqtgui4:armhf.
Preparing to unpack .../20-libqtgui4 4%3a4.8.7+dfsg-18+rpi1+deb10u1 armhf.deb ...
Unpacking libqtgui4:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Selecting previously unselected package python3-numpy.
Preparing to unpack .../21-python3-numpy_1%3a1.16.2-1_armhf.deb ...
Unpacking python3-numpy (1:1.16.2-1) ...
Selecting previously unselected package python3-h5py.
Preparing to unpack .../22-python3-h5py 2.8.0-3 armhf.deb ...
Unpacking python3-h5py (2.8.0-3) ...
Selecting previously unselected package qt-at-spi:armhf.
Preparing to unpack .../23-qt-at-spi_0.4.0-9_armhf.deb ...
Unpacking qt-at-spi:armhf (0.4.0-9) ...
Setting up libjpeg8:armhf (8d1-2) ...
Setting up libmng1:armhf (1.0.10+dfsg-3.1) ...
Setting up libatlas3-base:armhf (3.10.3-8+rpi1) ...
update-alternatives: using /usr/lib/arm-linux-gnueabihf/atlas/libblas.so.3 to provide /usr/lib/arm-linux-
gnueabihf/libblas.so.3 (libblas.so.3-arm-linux-gnueabihf) in auto mode
update-alternatives: using /usr/lib/arm-linux-gnueabihf/atlas/liblapack.so.3 to provide /usr/lib/arm-linux-
gnueabihf/liblapack.so.3 (liblapack.so.3-arm-linux-gnueabihf) in auto mode
Setting up freeglut3:armhf (2.8.1-3) ...
```

```
Setting up libatlas-base-dev:armhf (3.10.3-8+rpi1) ...
update-alternatives: using /usr/lib/arm-linux-gnueabihf/atlas/libblas.so to provide /usr/lib/arm-linux-
gnueabihf/libblas.so (libblas.so-arm-linux-gnueabihf) in auto mode
update-alternatives: using /usr/lib/arm-linux-gnueabihf/atlas/liblapack.so to provide /usr/lib/arm-linux-
gnueabihf/liblapack.so (liblapack.so-arm-linux-gnueabihf) in auto mode
Setting up libaec0:armhf (1.0.2-1) ...
Setting up libaudio2:armhf (1.9.4-6) ...
Setting up python3-numpy (1:1.16.2-1) ...
Setting up libjasper1:armhf (1.900.1-debian1-2.4+deb8u1) ...
Setting up libglu1-mesa:armhf (9.0.0-2.1) ...
Setting up qtchooser (66-2) ...
Setting up libsz2:armhf (1.0.2-1) ...
Setting up qtcore4-l10n (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Setting up libjasper-runtime (1.900.1-debian1-2.4+deb8u1) ...
Setting up libhdf5-103:armhf (1.10.4+repack-10) ...
Setting up python3-h5py (2.8.0-3) ...
Setting up libqtcore4:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Setting up libqtgui4:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Setting up libqt4-xml:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Setting up libqt4-test:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Setting up libqtdbus4:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Setting up qdbus (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Setting up libqt4-dbus:armhf (4:4.8.7+dfsg-18+rpi1+deb10u1) ...
Setting up qt-at-spi:armhf (0.4.0-9) ...
Processing triggers for man-db (2.8.5-2) ...
Processing triggers for libc-bin (2.28-10+rpt2+rpi1+deb10u1) ...
Creating python virtual env
Installing required python packages
Looking in indexes: https://pypi.org/simple, https://www.piwheels.org/simple
Collecting numpy==1.21.4
 Downloading https://www.piwheels.org/simple/numpy/numpy-1.21.4-cp37-cp37m-linux_armv6l.whl
(12.3MB)
  100% |
                                                   | 12.3MB 7.5kB/s
Installing collected packages: numpy
 Found existing installation: numpy 1.16.2
  Not uninstalling numpy at /usr/lib/python3/dist-packages, outside environment
/home/pi/cubotino micro/src/.virtualenvs
  Can't uninstall 'numpy'. No files were found to uninstall.
Successfully installed numpy-1.21.4
Looking in indexes: https://pypi.org/simple, https://www.piwheels.org/simple
Collecting picamera[array]
 Downloading https://www.piwheels.org/simple/picamera/picamera-1.13-py3-none-any.whl (154kB)
  100% |
                                                                 | 163kB 450kB/s
Requirement already satisfied: numpy; extra == "array" in ./.virtualenvs/lib/python3.7/site-packages (from
picamera[array]) (1.21.4)
Installing collected packages: picamera
Successfully installed picamera-1.13
```

Looking in indexes: https://pypi.org/simple, https://www.piwheels.org/simple

Collecting st7735==0.0.4.post1

Downloading https://www.piwheels.org/simple/st7735/ST7735-0.0.4.post1-py3-none-any.whl

Requirement already satisfied: spidev>=3.4 in /usr/lib/python3/dist-packages (from st7735==0.0.4.post1)

(3.5)

Installing collected packages: st7735 Successfully installed st7735-0.0.4.post1

Looking in indexes: https://pypi.org/simple, https://www.piwheels.org/simple

Collecting st7789==0.0.4

Downloading

https://files.pythonhosted.org/packages/39/b5/99dd0f9b8bbee0c42f94388216da30502718a971fbfa2c269

87020f5fa18/ST7789-0.0.4-py3-none-any.whl

Installing collected packages: st7789 Successfully installed st7789-0.0.4

Looking in indexes: https://pypi.org/simple, https://www.piwheels.org/simple

Collecting RubikTwoPhase==1.1.1

Downloading

https://files.pythonhosted.org/packages/ff/70/d38812a69a5c1142b7d765afb62177e1f71f5a2b122fed681ccd90c3acac/RubikTwoPhase-1.1.1-py3-none-any.whl (53kB)

100% | 61kB 488kB/s

Installing collected packages: RubikTwoPhase Successfully installed RubikTwoPhase-1.1.1

Looking in indexes: https://pypi.org/simple, https://www.piwheels.org/simple

Collecting getmac==0.8.3

Downloading

https://files.pythonhosted.org/packages/ea/ad/7821cbe819079c037a1e1a89a41d9e43b767052307fa474ed0b425394fcb/getmac-0.8.3-py2.py3-none-any.whl

Installing collected packages: getmac Successfully installed getmac-0.8.3

Looking in indexes: https://pypi.org/simple, https://www.piwheels.org/simple

Collecting opency-contrib-python==4.1.0.25 from https://www.piwheels.org/simple/opency-contrib-

python/opencv\_contrib\_python-4.1.0.25-cp37-cp37m-linux\_armv6l.whl

Downloading https://www.piwheels.org/simple/opencv-contrib-python/opencv\_contrib\_python-4.1.0.25-cp37-cp37m-linux\_armv6l.whl (15.1MB)

100% | 15.1MB 5.5kB/s

Requirement already satisfied: numpy>=1.16.2 in ./.virtualenvs/lib/python3.7/site-packages (from opency-contrib-python==4.1.0.25) (1.21.4)

Installing collected packages: opencv-contrib-python Successfully installed opencv-contrib-python-4.1.0.25

Configuring pigpiod to start on boot

Created symlink /etc/systemd/system/multi-user.target.wants/pigpiod.service  $\rightarrow$  /lib/systemd/system/pigpiod.service.

Configuring vnc server to run at startup and prepare setup for cubotino

Reboot now? (y/n)