

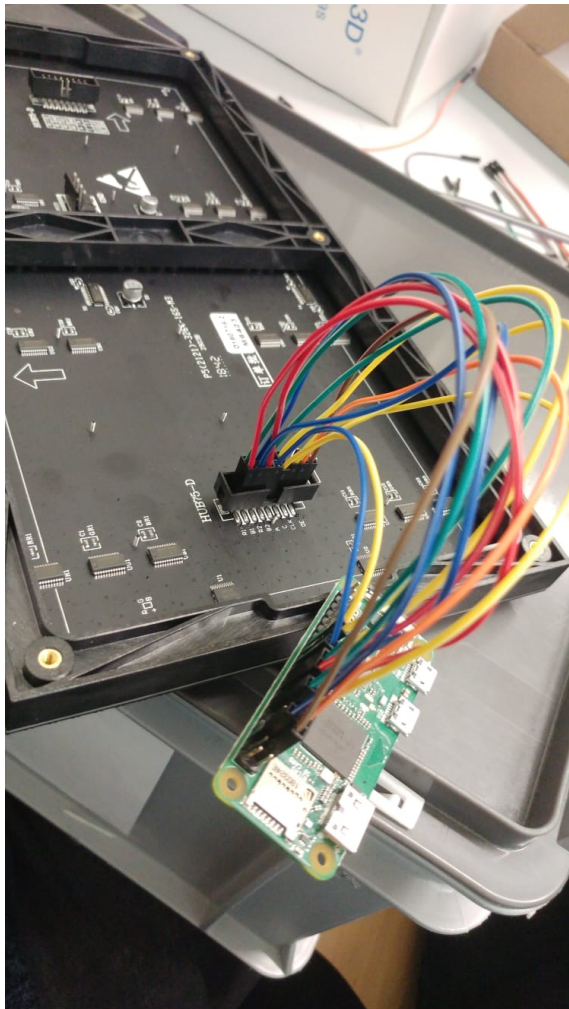
ETAPE 1

Hardware :

Materiels requis :

- Raspberry Pi0
- Un panneau LED
- Cables de connections
- Bloc d'alimentation

Connecter tous les composants :



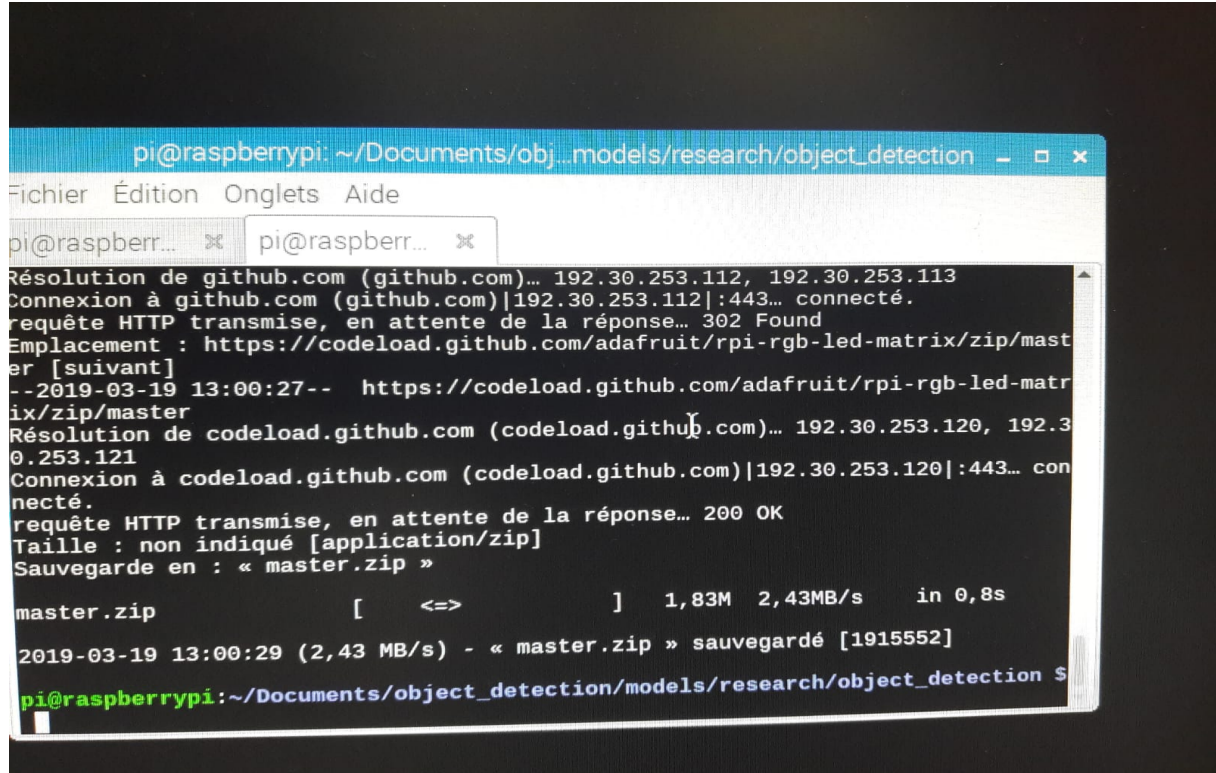
Le bloc d'alimentation n'étant pas encore livrée nous n'avons pas pu tout connecté

Configuration Software :

ETAPE 2 :

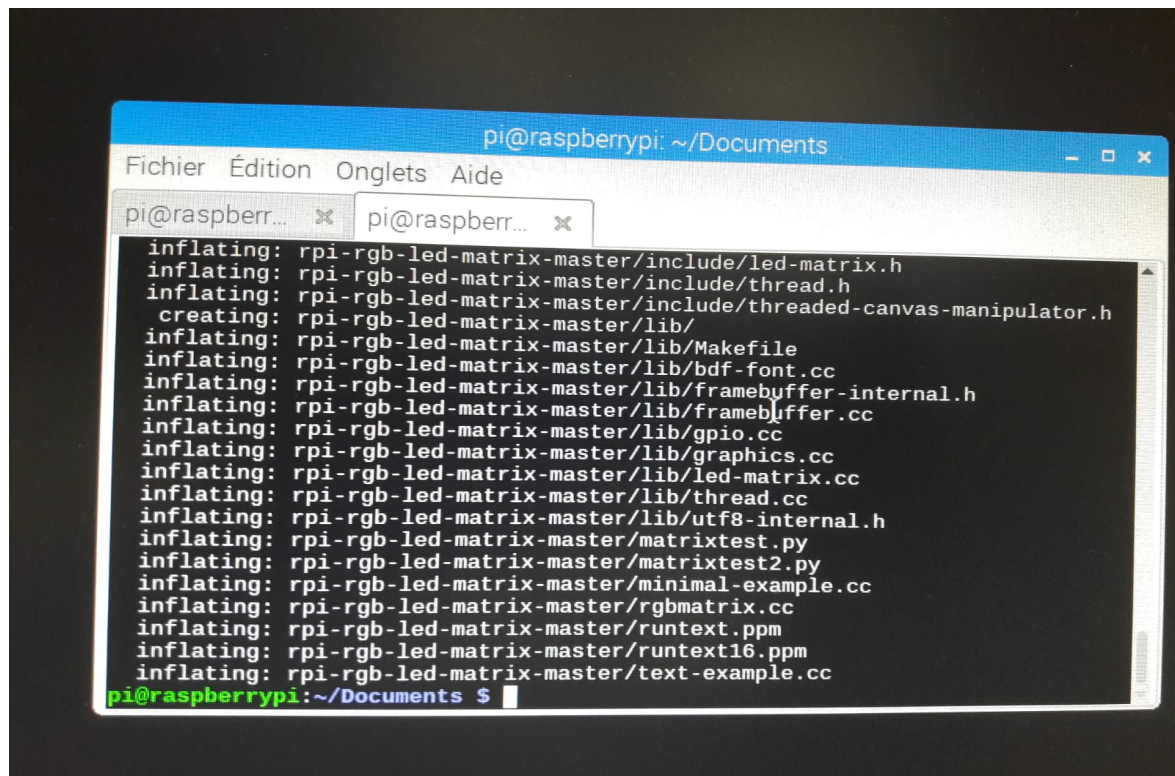
Télécharger le code pour piloter le panneau LED :

```
wget https://github.com/adafruit/rpi-rgb-led-matrix/archive/master.zip
```



```
pi@raspberrypi: ~/Documents/object_detection/models/research/object_detection
Fichier  Édition  Onglets  Aide
pi@raspberr... x pi@raspberr... x
Résolution de github.com (github.com)... 192.30.253.112, 192.30.253.113
Connexion à github.com (github.com)|192.30.253.112|:443... connecté.
requête HTTP transmise, en attente de la réponse... 302 Found
Emplacement : https://codeload.github.com/adafruit/rpi-rgb-led-matrix/zip/master [suivant]
--2019-03-19 13:00:27-- https://codeload.github.com/adafruit/rpi-rgb-led-matrix/zip/master
Résolution de codeload.github.com (codeload.github.com)... 192.30.253.120, 192.30.253.121
Connexion à codeload.github.com (codeload.github.com)|192.30.253.120|:443... connecté.
requête HTTP transmise, en attente de la réponse... 200 OK
Taille : non indiqué [application/zip]
Sauvegarde en : « master.zip »
master.zip [ <=> ] 1,83M 2,43MB/s in 0,8s
2019-03-19 13:00:29 (2,43 MB/s) - « master.zip » sauvegardé [1915552]
pi@raspberrypi:~/Documents/object_detection/models/research/object_detection $
```

unzip master.zip

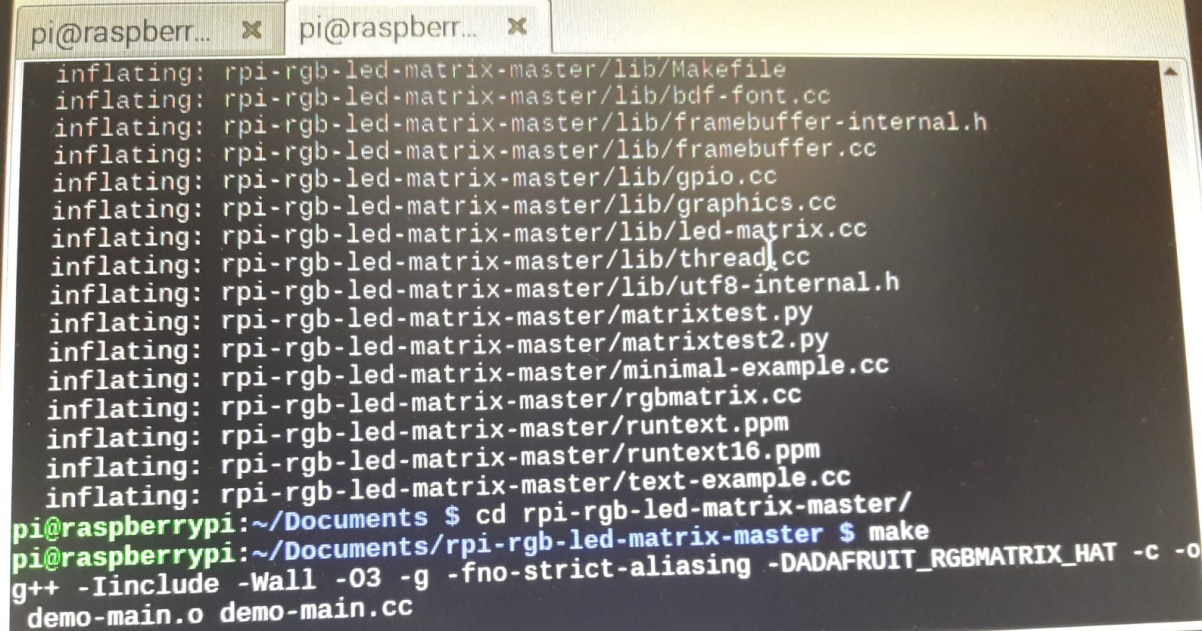


```
pi@raspberrypi: ~/Documents
Fichier  Édition  Onglets  Aide
pi@raspberr... x pi@raspberr... x
inflating: rpi-rgb-led-matrix-master/include/led-matrix.h
inflating: rpi-rgb-led-matrix-master/include/thread.h
inflating: rpi-rgb-led-matrix-master/include/threaded-canvas-manipulator.h
creating: rpi-rgb-led-matrix-master/lib/
inflating: rpi-rgb-led-matrix-master/lib/Makefile
inflating: rpi-rgb-led-matrix-master/lib/bdf-font.cc
inflating: rpi-rgb-led-matrix-master/lib/framebuffer-internal.h
inflating: rpi-rgb-led-matrix-master/lib/framebuffer.cc
inflating: rpi-rgb-led-matrix-master/lib/gpio.cc
inflating: rpi-rgb-led-matrix-master/lib/graphics.cc
inflating: rpi-rgb-led-matrix-master/lib/led-matrix.cc
inflating: rpi-rgb-led-matrix-master/lib/thread.cc
inflating: rpi-rgb-led-matrix-master/lib/utf8-internal.h
inflating: rpi-rgb-led-matrix-master/matrixtest.py
inflating: rpi-rgb-led-matrix-master/matrixtest2.py
inflating: rpi-rgb-led-matrix-master/minimal-example.cc
inflating: rpi-rgb-led-matrix-master/rgbmatrix.cc
inflating: rpi-rgb-led-matrix-master/runtext.ppm
inflating: rpi-rgb-led-matrix-master/runtext16.ppm
inflating: rpi-rgb-led-matrix-master/text-example.cc
pi@raspberrypi:~/Documents $
```

Dans le dossier que nous venons de décompresser faire :

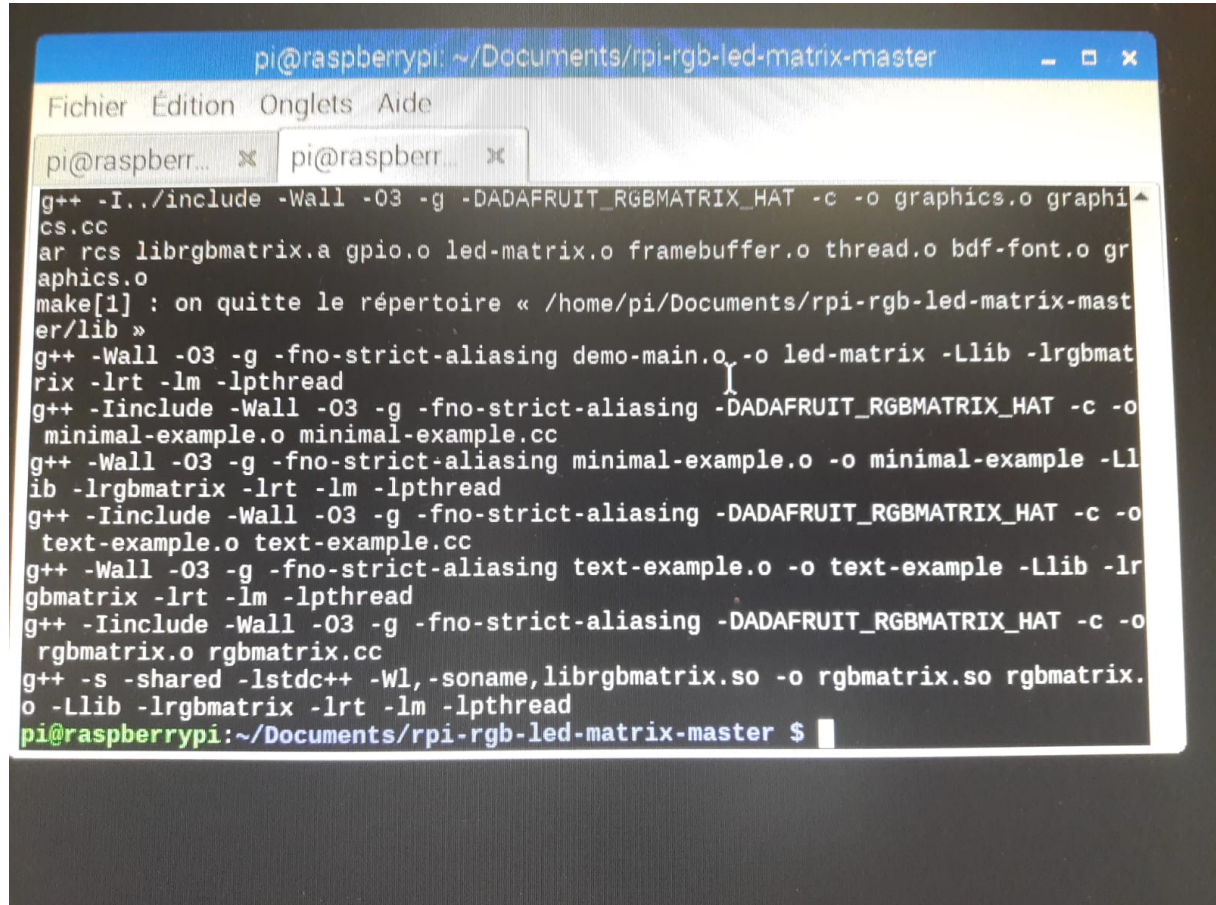
```
cd rpi-rgb-led-matrix-master/
```

```
make
```



```
pi@raspberr... x pi@raspberr... x
inflating: rpi-rgb-led-matrix-master/lib/Makefile
inflating: rpi-rgb-led-matrix-master/lib/bdf-font.cc
inflating: rpi-rgb-led-matrix-master/lib/framebuffer-internal.h
inflating: rpi-rgb-led-matrix-master/lib/framebuffer.cc
inflating: rpi-rgb-led-matrix-master/lib/gpio.cc
inflating: rpi-rgb-led-matrix-master/lib/graphics.cc
inflating: rpi-rgb-led-matrix-master/lib/led-matrix.cc
inflating: rpi-rgb-led-matrix-master/lib/thread.cc
inflating: rpi-rgb-led-matrix-master/lib/utf8-internal.h
inflating: rpi-rgb-led-matrix-master/matrixtest.py
inflating: rpi-rgb-led-matrix-master/matrixtest2.py
inflating: rpi-rgb-led-matrix-master/minimal-example.cc
inflating: rpi-rgb-led-matrix-master/rgbmatrix.cc
inflating: rpi-rgb-led-matrix-master/runtext.ppm
inflating: rpi-rgb-led-matrix-master/runtext16.ppm
inflating: rpi-rgb-led-matrix-master/text-example.cc
pi@raspberrypi:~/Documents $ cd rpi-rgb-led-matrix-master/
pi@raspberrypi:~/Documents/rpi-rgb-led-matrix-master $ make
g++ -Iinclude -Wall -O3 -g -fno-strict-aliasing -DADAFRUIT_RGBMATRIX_HAT -c -o
demo-main.o demo-main.cc
```


Fin du make



```
pi@raspberrypi: ~/Documents/rpi-rgb-led-matrix-master
Fichier  Édition  Onglets  Aide
pi@raspberr... x  pi@raspberr... x
g++ -I../include -Wall -O3 -g -DADAFRUIT_RGBMATRIX_HAT -c -o graphics.o graphi
cs.cc
ar rcs librgbmatrix.a gpio.o led-matrix.o framebuffer.o thread.o bdf-font.o gr
aphics.o
make[1] : on quitte le répertoire « /home/pi/Documents/rpi-rgb-led-matrix-mast
er/lib »
g++ -Wall -O3 -g -fno-strict-aliasing demo-main.o -o led-matrix -Llib -lrgbmat
rix -lrt -lm -lpthread
g++ -Iinclude -Wall -O3 -g -fno-strict-aliasing -DADAFRUIT_RGBMATRIX_HAT -c -o
minimal-example.o minimal-example.cc
g++ -Wall -O3 -g -fno-strict-aliasing minimal-example.o -o minimal-example -Ll
ib -lrgbmatrix -lrt -lm -lpthread
g++ -Iinclude -Wall -O3 -g -fno-strict-aliasing -DADAFRUIT_RGBMATRIX_HAT -c -o
text-example.o text-example.cc
g++ -Wall -O3 -g -fno-strict-aliasing text-example.o -o text-example -Llib -lr
gbmatrix -lrt -lm -lpthread
g++ -Iinclude -Wall -O3 -g -fno-strict-aliasing -DADAFRUIT_RGBMATRIX_HAT -c -o
rgbmatrix.o rgbmatrix.cc
g++ -s -shared -lstdc++ -Wl,-soname,librgbmatrix.so -o rgbmatrix.so rgbmatrix.
o -Llib -lrgbmatrix -lrt -lm -lpthread
pi@raspberrypi:~/Documents/rpi-rgb-led-matrix-master $
```

Etape 3

Programmer le panneau LED en python

(un fichier test est déposé sur le Git)