

```
#!/usr/bin/python2
```

```
Import time
```

```
Import sys
```

```
EMULATE_HX711=False
```

```
referenceUnit = 1
```

```
if not EMULATE_HX711:
```

```
    import RPi.GPIO as GPIO
```

```
    from hx711 import HX711
```

```
else:
```

```
    from emulated_hx711 import HX711
```

```
def cleanAndExit():
```

```
    print("Cleaning...")
```

```
    if not EMULATE_HX711:
```

```
        GPIO.cleanup()
```

```
    Print("Bye!")
```

```
    Sys.exit()
```

```
Hx = HX711(5, 6)
```

```
# I've found out that, for some reason, the order of the bytes is not always the same between versions  
of python, numpy and the hx711 itself.
```

```
# Still need to figure out why does it change.
```

If you're experiencing super random values, change these values to MSB or LSB until to get more stable values.

There is some code below to debug and log the order of the bits and the bytes.

The first parameter is the order in which the bytes are used to build the "long" value.

The second parameter is the order of the bits inside each byte.

According to the HX711 Datasheet, the second parameter is MSB so you shouldn't need to modify it.

```
Hx.set_reading_format("MSB", "MSB")
```

HOW TO CALCULATE THE REFERENCE UNIT

To set the reference unit to 1. Put 1kg on your sensor or anything you have and know exactly how much it weights.

In this case, 92 is 1 gram because, with 1 as a reference unit I got numbers near 0 without any weight

and I got numbers around 184000 when I added 2kg. So, according to the rule of thirds:

If 2000 grams is 184000 then 1000 grams is $184000 / 2000 = 92$.

```
#hx.set_reference_unit(113)
```

```
Hx.set_reference_unit(referenceUnit)
```

```
Hx.reset()
```

```
Hx.tare()
```

```
Print("Tare done! Add weight now...")
```

to use both channels, you'll need to tare them both

```
#hx.tare_A()
```

```
#hx.tare_B()
```

While True:

Try:

These three lines are usefull to debug wether to use MSB or LSB in the reading formats
for the first parameter of "hx.set_reading_format("LSB", "MSB")".
Comment the two lines "val = hx.get_weight(5)" and "print val" and uncomment these three lines
to see what it prints.

```
# np_arr8_string = hx.get_np_arr8_string()  
# binary_string = hx.get_binary_string()  
# print binary_string + " " + np_arr8_string
```

Prints the weight. Comment if you're debbuging the MSB and LSB issue.

```
Val = hx.get_weight(5)
```

```
Print(val)
```

To get weight from both channels (if you have load cells hooked up

to both channel A and B), do something like this

```
#val_A = hx.get_weight_A(5)
```

```
#val_B = hx.get_weight_B(5)
```

```
#print "A: %s B: %s" % ( val_A, val_B )
```

```
Hx.power_down()
```

```
Hx.power_up()
```

```
Time.sleep(0.1)
```

Except (KeyboardInterrupt, SystemExit):

```
cleanAndExit()
```