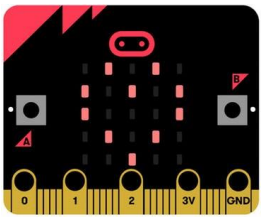
MICRO:BIT



ANNEXE 1 : EXEMPLES PYTHON

Exemple 1 : Hello world !

```
from microbit import *
display.scroll("Hello, terriens !")
```

Exemple 2 : Hello world ! (avec répétition)

```
from microbit import *
while True:
    display.scroll("Hello, terriens !")
```

Exemple 3 : Détection de bouton en entrée (deux boutons)

```
from microbit import *
while True:
    if button_a.is_pressed():
        display.show(Image.HAPPY)
    if button_b.is_pressed():
        display.show(Image.SAD)
```

Exemple 4 : Détection de toucher de broche (broche 0)

```
from microbit import *
touches = 0
while True:
    if pin0.is_touched():
        touches += 1
        display.scroll(str(touches))
```

Exemple 5 : Mesure de température

```
from microbit import *
while True:
    display.scroll(str(temperature()))
    display.scroll(' Celsius')
```

Exemple 6 : Bousole

```
from microbit import *
while True:
    display.scroll('Cap %s' % compass.heading())
```

Exemple 7 : Accéléromètre (capteur de secousses)

```
from microbit import *
while True:
    if accelerometer.is_gesture("shake"):
        display.show(Image.SURPRISED)
        sleep(1000)
        display.show(Image.ASLEEP)
```

Exemple 8 : Accéléromètre (données)

```
from microbit import *
while True:
    display.scroll('X:%s' % accelerometer.get_x())
    display.scroll('Y:%s' % accelerometer.get_y())
    display.scroll('Z:%s' % accelerometer.get_z())
```

Exemple 9 : Communication radio entre micro:bits du même groupe

Micro:bit A

```
from microbit import *
import radio
radio.config(group=1)
radio.on()
while True:
    if button_a.was_pressed():
        radio.send('Hello de A!')
    message = radio.receive()
    if message != None:
        display.scroll(str(message))
```

Micro :bit B

```
from microbit import *
import radio
radio.config(group=1)
radio.on()
while True:
    if button_a.was_pressed():
        radio.send('Hello de B!')
    message = radio.receive()
    if message != None:
        display.scroll(str(message))
```

Micro :bit C

```
from microbit import *
import radio
radio.config(group=1)
radio.on()
while True:
    if button_a.was_pressed():
        radio.send('Hello de C!')
    message = radio.receive()
    if message != None:
        display.scroll(str(message))
```

Exemple 10 : Communication radio entre micro:bits de groupes différents

Micro:bit A

```
from microbit import *
import radio

radio.config(group=1)
radio.on()

while True:
    if button_a.was_pressed():
        radio.send('Hello de A!')
    if button_b.was_pressed():
        radio.config(group=2)
        display.scroll('Passage au Groupe 2')
    message = radio.receive()
    if message != None:
        display.scroll(str(message))
```

Micro:bit B

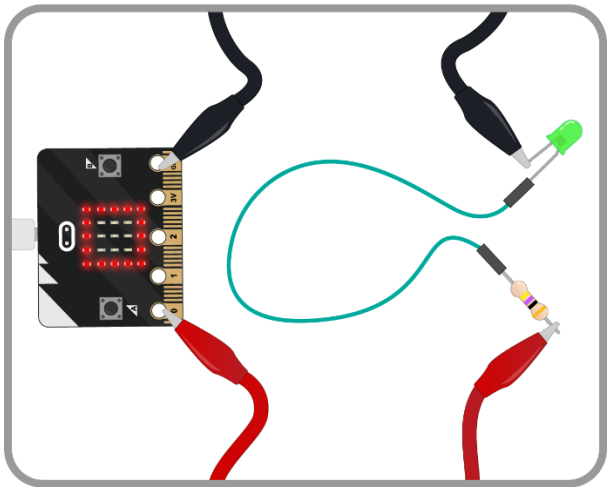
```
from microbit import *
import radio

radio.config(group=1)
radio.on()

while True:
    if button_a.was_pressed():
        radio.send('Hello de B!')
    if button_b.was_pressed():
        radio.config(group=2)
        display.scroll('Passage au Groupe 2')
    message = radio.receive()
    if message != None:
        display.scroll(str(message))
```

Exemple 11 : Contrôle d'une LED externe en sortie 0

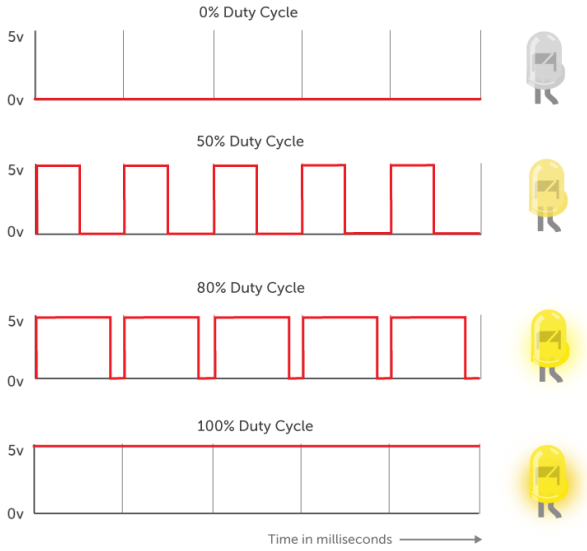
```
from microbit import *
while True:
    pin0.write_digital(1)
    sleep(1000)
    pin0.write_digital(0)
    sleep(1000)
```



Exemple 12 : gradateur de LED en sortie 1 piloté en PWM

```
from microbit import *
pin1.set_analog_period(1)

while True:
    for lumino in range(0,1024,1):
        pin1.write_analog(lumino)
        sleep(1)
    for lumino in range(1023,-1,-1):
        pin1.write_analog(lumino)
        sleep(1)
```



Exemple 13 : Lecture d'une entrée analogique sur la broche 0

```
from microbit import *
while True:
    valPotar = pin0.read_analog()
    display.scroll(str(valPotar))
```