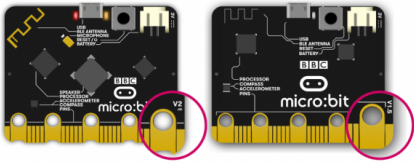


Micro:bit

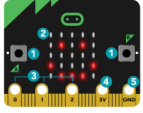
(page créée le 20 mai 2022, en cours de rédaction)

Caractéristiques principales

Il existe deux versions principales de micro:bit.



micro:bit V1



micro:bit V1 - Front

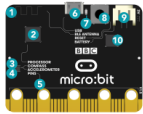
1. Buttons

2. LED Display

3. Pin - GPIO

4. Pin - 3 Volt Power

5. Pin - Ground



micro:bit V1 - Back

1. Radio & Bluetooth Antenna

2. Temperature Sensor & Processor

3. Compass

4. Accelerometer

5. Pin

6. Micro USB Socket

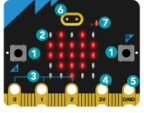
7. Single Red LED

8. Reset Button

9. Battery Socket

10. USB Interface Chip

micro:bit V2



micro:bit V2 - Front

1. Buttons

2. LED Display

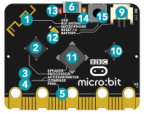
3. Notched Pin - GPIO

4. Pin - 3 Volt Power

5. Pin - Ground

6. Gold Touch Logo

7. Microphone LED



micro:bit V2 - Back

1. Radio & Bluetooth Antenna

2. Temperature Sensor & Processor

3. Compass

4. Accelerometer

5. Pin

6. Micro USB Socket

7. Single Red LED

8. Reset Button

9. Battery Socket

10. USB Interface Chip

11. Speaker


12. Microphone

13. Red Power LED


14. Yellow USB LED

15. Reset & Power button

micro:bit V1.5 vs V2



micro:bit v1.5



micro:bit v2

| Features/Specs | micro:bit v1.5 | micro:bit v2 |
|-------------------------|---|---|
| Release Date | NA | 13th Oct 2020 |
| MCU or Processor | Nordic Semiconductor nRF51822 | Nordic Semiconductor nRF52833 |
| MCU Core Architecture | ARM Cortex-M0 32-bit | ARM Cortex-M4 32-bit (FPU) |
| MCU Flash Size | 256KB | 512KB |
| RAM Size | 16KB | 128KB |
| MCU Clock | 16MHz | 64MHz |
| USB Interface Processor | NXP KL26Z, 16KB RAM | NXP KL27Z, 32KB RAM |
| Microphone, MIC | None | MEMS Microphone, LED Indicator |
| Speaker | None | Onboard Piezo Buzzer |
| Touch Sensitive Logo | None | Touch Sensitive Logo Pad |
| Wireless | 2.4GHz micro:bit radio/BLE Bluetooth 4.0 | 2.4GHz micro:bit radio/BLE Bluetooth 5.1 |
| Power | 3V via USB, 3V via edge connector or battery port | 3V via USB, 3V via edge connector or battery port |
| Power Indicator LED | NA | Onboard Power Indicator LED |
| Power Off Button | NA | Onboard Power Button (Push and Hold) |
| Current for External | 3V, 50mA | 3V, 200mA |
| Motion Sensor | ST LSM303 | ST LSM303 |
| Edge Connector | 25-pin, 3 dedicated GPIO, PWM, I2C, SPI, Power, and etc | 25-pin, 4 dedicated GPIO, PWM, I2C, SPI, Power, and etc |
| Ring Connector | 3 (GPIO) + 2 (Power) ring connectors | 3 (GPIO) + 2 (Power) ring connectors, notched edge |
| I2C | Shared I2C Bus | Dedicated I2C Bus for peripherals |
| Software/IDE | C++, makecode, Python, Scratch | C++, makecode, Python, Scratch |
| Size | 50mm (w) x 40mm (h) | 50mm (w) x 40mm (h) |

Brochage / Pinout

<http://lesporteslogiques.net/wiki/>

1 / 3

micro:bit

PINOUT

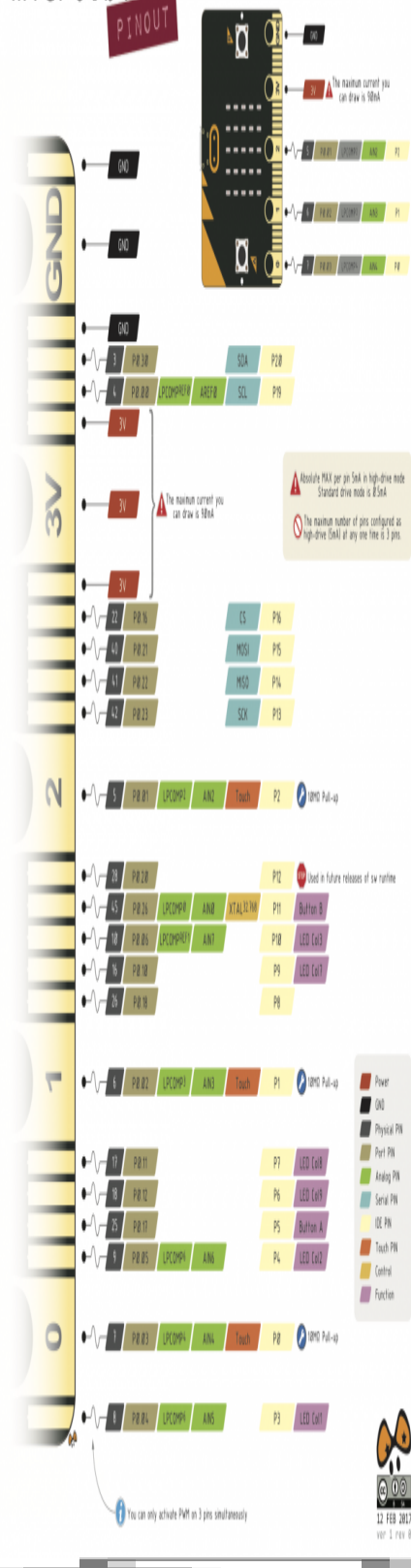


Schéma par PighiXXX, CC BY-SA

Programmer la carte

En ligne, par bloc, en javascript ou micropython, avec l'éditeur makecode

- <https://makecode.microbit.org/?lang=fr>

En ligne / en local, par bloc avec Scratch

- <https://scratch.mit.edu/microbit>

En local, en code micropython, avec l'éditeur Mu

- <https://codewith.mu/>
- <https://microbit-micropython.readthedocs.io/en/latest/index.html>

En local, en code C, avec l'IDE arduino

- <https://learn.adafruit.com/use-micro-bit-with-arduino?view=all>

Utilisation

Connexion série sur linux

A minima, on peut utiliser screen pour recevoir les données

```
ls /dev/ttyACM*          # chercher le port
screen /dev/ttyACM0 115200
# on arrête screen avec CTRL-A, puis K (pour Kill)...
# sur l'utilisation de screen, voir https://www.tecmint.com/screen-command-examples-to-manage-linux-terminals/
```

Des exemples pour une réception dans processing ici : https://github.com/emoc/microbit_utile

Extensions

micro:bit + shield grove : https://wiki.seeedstudio.com/Grove_Inventor_Kit_for_microbit/

micro:bit avec Scratch :

Ressources

Article extrait de : <http://lesporteslogiques.net/wiki/> - **WIKI Les Portes Logiques**
Adresse : <http://lesporteslogiques.net/wiki/materiel/microbit?rev=1653292547>
Article mis à jour: **2022/05/23 09:55**