

# RP2040 mikroBUS Starter Kit

KIT-19936

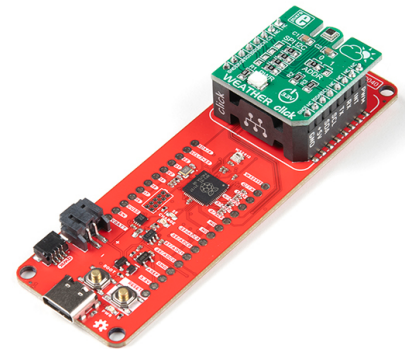
## Product Overview

09/16/2022

For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

SparkFun RP2040 mikroBUS Starter Kit is designed to use click and Qwiic ecosystems side-by-side powered by Raspberry Pi. The core of this kit is designed around the SparkFun RP2040 mikroBUS™ development board, the SparkFun micro OLED breakout (Qwiic), and the MIKROE weather click. The RP2040 mikroBus development board is a low-cost, high-performance platform with flexible digital interfaces. This board includes the Thing Plus or Feather PTH pin layout, a microSD card slot, 16MB (128Mbit) flash memory, a JST single cell battery connector, an addressable WS2812 RGB LED, JTAG PTH pins, four (4 to 40 screw) mounting holes, Qwiic connectors, and a mikroBUS socket.



The RP2040 board supports both C/C++ and MicroPython cross-platform development environments. This board features 264kB of embedded SRAM in six banks, six dedicated IO for SPI Flash, and thirty multifunction GPIO. The RP2040 mikroBus starter kit includes SparkFun RP2040 mikroBUS development board, MIKROE weather click, SparkFun micro OLED breakout (Qwiic), 100mm flexible Qwiic cable, and USB 3.1 cable A to C.

## Features

- RP2040 mikroBUS development board:
  - Raspberry Pi foundation RP2040 microcontroller:
    - 18[1] multifunctional GPIO pins[2]
      - Four available 12-bit ADC channels with an internal temperature sensor (500kSa/s)
      - Up to eight 2-channel PWM
      - Up to two UARTs
      - Up to two I<sup>2</sup>C buses
      - Up to two SPI buses
- Thing Plus (or Feather) pin layout:
  - 28 PTH pins
  - USB-C connector:
    - USB 1.1 host/device functionality

## Features

- 2-pin JST connector for a LiPo battery (not included):
  - 500mA charging circuit
- 4-pin JST Qwiic connector
- LEDs:
  - PWR - Red 3.3V power indicator
  - CHG - Yellow battery charging indicator
  - 25 - Blue status/test LED (GPIO 25)
  - WS2812 - Addressable RGB LED (GPIO 08)
- Buttons:
  - Boot
  - Reset
- JTAG PTH Pins
- 16MB QSPI flash memory
- microSD card slot
- mikroBUS socket
- 3.7" x 1.2" dimensions
- Four mounting holes:
  - 4 to 40 screw compatible

## Kit Contents

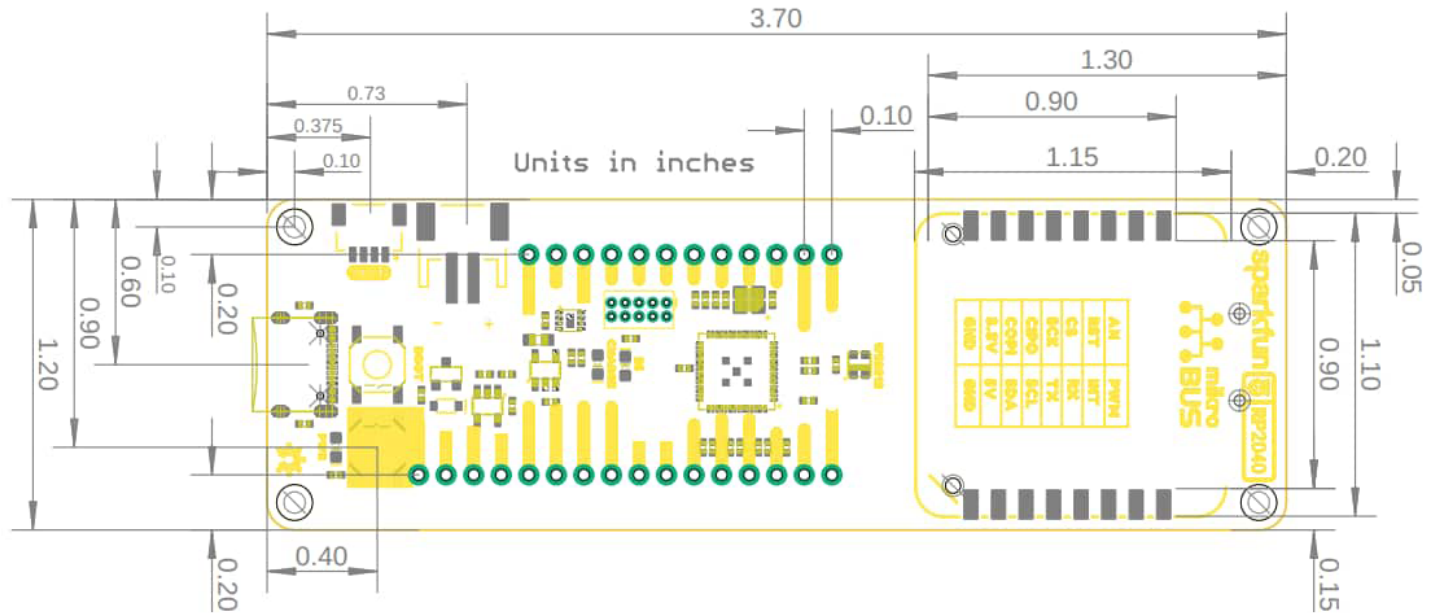
- 1x SparkFun RP2040 mikroBUS™ Development Board
- 1x MIKROE weather click
- 1x SparkFun Micro OLED breakout (Qwiic)
- 1x Flexible Qwiic cable - 100mm
- 1x USB 3.1 cable A to C - 3 foot



## Schematic Diagram

- [RP2040 Development Board](#)

## Board Dimensions



## Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/sparkfun/sparkfun-rp2040-mikrobus-starter-kit/>