

# Circuit Playground Express Design board

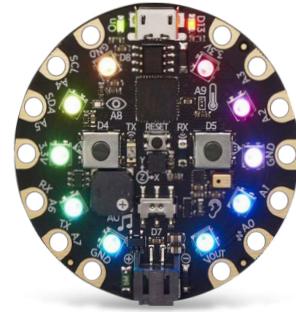
## Product Overview

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## Description

Adafruit Circuit Playground Express is an all-in-one design board featuring sensors, processor, USB, LEDs, and more, making it an ideal introduction to programming and electronics. The Circuit Playground Express supports programming through a web-based code editor and Microsoft Make code for physical computing. Users can build programs to create custom animations, sounds and use sensor events like “On Shake” to react to external stimulus. The Circuit Playground Express is based on an ultralow-power SMART SAM L21 Microcontroller, using a 32-bit ARM® Cortex®-M0+ core. It can be powered by fro USB, a “AAA” battery pack with a Lipoly battery.



The round, sensor-packed Circuit Playground Express Board features alligator-clip pads around the edge, making it easy to connect to projects without solder. Built-in USB allows quick connectivity for programming, with no special cables or adapters required.

## Features

- Microchip Technology SMART SAM L21 Microcontroller
- 2MB SPI Flash storage
- Micro USB port for programming and debugging

## Kit Contents

- 10 x Mini Neo Pixel LEDs, each one can display any rainbow color
- 1 x Motion Sensor (LIS3DH 3-Axis XYZ Accelerometer), with Tap and Free-Fall Detection)
- 1 x Temperature Sensor (MMBT2222)
- 1 x Light Sensor (ALSPT1931), can also act as a Color or Pulse Sensor)
- 1 x Sound sensor (MEMS Microphone)
- Infrared Transmitter and Receiver (DSOP38338), can transmit and receive remote control codes, send messages between Circuit.

- Playground Expresses, or act as a Proximity Sensor
- 1 x Mini speaker with class D amplifier (7.5mm magnetic speaker/buzzer)
- 2 x Push buttons, left and right
- 1 x Slide switch
- 8 x Alligator-clip friendly input/output pins (Includes I2C, UART, 8 pins that can do analog inputs/multiple PWM output)
- 7 pads can act as Capacitive Touch inputs, remaining pad is a true analog output
- Green “ON” LED
- Red “#13” LED for basic blinking
- Reset button

## Overview



## Mouser Part Numbers

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