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Overview

PyLeap is an app for iOS and iPadOS. It allows you to collect complete projects from the Adafruit Learn System, and transfer them directly to your Circuit Playground Bluefruit without opening a code editor or connecting to a computer.

We are considering an Android version, like with many of our other apps. At this time there is only an iOS app.

This app is designed from the ground up for Circuit Playground Bluefruit. You can pick one up from the Adafruit Shop along with other accessories:
Circuit Playground Bluefruit - Bluetooth Low Energy
Circuit Playground Bluefruit is our third board in the Circuit Playground series, another step towards a perfect introduction to electronics and programming. We've...
https://www.adafruit.com/product/4333

Lithium Ion Polymer Battery - 3.7v 1200mAh
Lithium-ion polymer (also known as 'lipo' or 'lipoly') batteries are thin, light, and powerful. The output ranges from 4.2V when completely charged to 3.7V. This...
https://www.adafruit.com/product/258

Adafruit LED Glasses Front Panel - 116 RGB LEDs with I2C Driver
Have you always wanted to upgrade your ensemble with a creepy-cool creature PCB silkscreen and an eye-blistering arrangement of LEDs?
https://www.adafruit.com/product/5210

JST SH 4-pin Cable with Alligator Clips - STEMMA QT / Qwiic
This cable will make it super easy to use our plug-and-play STEMMA QT boards with boards like Circuit Playground. On one end you get a Qwiic / STEMMA QT connector (technically known as...
https://www.adafruit.com/product/4398
CircuitPython

Install CircuitPython

Currently PyLeap requires a Circuit Playground Bluefruit board running the most recent build of Circuit Python 7. If you haven't already, you'll need to download the latest version of CircuitPython from the link below.

Download CircuitPython for Circuit Playground Bluefruit from CircuitPython.org
https://adafruit/FNK

Plug your Circuit Playground Bluefruit into your computer using a known-good data-capable USB cable.

A lot of people end up using charge-only USB cables and it is very frustrating! So make sure you have a USB cable you know is good for data sync.

Double-click the small Reset button in the middle of the CPB (indicated by the red arrow in the image). The ten NeoPixel LEDs will all turn red, and then will all turn green. If they turn all red and stay red, check the USB cable, try another USB port, etc. The little red LED next to the USB connector will pulse red - this is ok!
Plug your Circuit Playground Bluefruit into your computer using a known-good data-capable USB cable.

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Double-click the small Reset button in the middle of the CPB (indicated by the red arrow in the image). The ten NeoPixel LEDs will all turn red, and then will all turn green. If they turn all red and stay red, check the USB cable, try another USB port, etc. The little red LED next to the USB connector will pulse red - this is ok!

If double-clicking doesn't work the first time, try again. Sometimes it can take a few tries to get the rhythm right!

(If double-clicking doesn't do it, try a single-click!)
You will see a new disk drive appear called CPLAYBTBOOT.

Drag the adafruit_circuitpython_etc.uf2 file to CPLAYBTBOOT.

The LEDs will turn red. Then, the CPLAYBTBOOT drive will disappear and a new disk drive called CIRCUITPY will appear.

That's it, you're done! :)

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**Pairing**

Now that you're done uploading the correct firmware, disconnect your device from your computer and power it via LiPoly [https://adafruit.it/waX](https://adafruit.it/waX) or AAA battery pack [https://adafruit.it/dYF](https://adafruit.it/dYF).

**Pairing device to PyLeap**

Once powered, press the small Reset button in the center of the board. When the blue light flashes, press the reset button again.
When done correctly, the LEDs will flash yellow followed by solid blue. Once this occurs, the board will continuously be in discovery mode.

Scan & Connect

Open the Bluefruit Playground app on your iPhone or iPad. While your device is in discovery mode, hold your Circuit Playground Bluefruit very closely to your mobile device.
On the lower left-side of you iPhone or iPad you'll notice a status indicator that will let you know your current pairing status.

Searching...

Press the RESET button in the center of the board
Then press RESET again while LEDs flashes blue

Hold your Bluefruit device closely to your mobile device

Devices found: 30
Adafruit devices found: 0
PyLeap enabled devices found: 0

On the lower left-side of you iPhone or iPad you'll notice a status indicator that will let you know your current pairing status.

Devices found: 33
Adafruit devices found: 1
PyLeap enabled devices found: 1
Status: Scanning...
Once you've found your device and received the Bluetooth Pairing Request message, press Pair to pair your board to your iPhone or iPadOS.

**If your Circuit Playground Bluefruit doesn't appear:**

1. Check to see if your Circuit Playground Bluefruit is powered on. Verify that the green On light is lit.
2. Make sure your Circuit Playground Bluefruit is running the correct firmware. See the Circuit Python page (https://adafruit.it/Xwc) in this guide.
3. Try resetting the Circuit Playground Bluefruit by pressing the small Reset button near the center of the board.

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**Troubleshooting**

If you happen to witness this message "Disconnected: Peer removed pairing information " there is a way to remedy that.

Go to your Settings app, then go to the Bluetooth setting and delete your Circuit Playground Bluefruit device from the list.

![Settings and Bluetooth screens](image)

Once you've removed the Circuit Playground Bluefruit device from your device list, for good measure, reset the PyLeap app as well.

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**Modules**

Once connected, the app will display a list of projects to choose from.
Choose one of the modules from the list and go to its related page in this guide to learn more.

- PyLeap Glide on over to some Rainbows (https://adafru.it/Xf9)
- PyLeap MP3 Playback for Circuit Playground Bluefruit (https://adafru.it/Xfa)
- PyLeap NeoPixel Sound Meter for Circuit Playground Bluefruit (https://adafru.it/Xfb)
- PyLeap NeoPixel Light Meter for Circuit Playground Bluefruit (https://adafru.it/Xfc)
- PyLeap Touch NeoPixel Rainbow for Circuit Playground Bluefruit (https://adafru.it/Xfd)
- PyLeap Button Controlled NeoPixels for Circuit Playground Bluefruit (https://adafru.it/Xfe)
- PyLeap WAV Playback for Circuit Playground Bluefruit (https://adafru.it/Xff)
- PyLeap Tone Piano for Circuit Playground Bluefruit (https://adafru.it/Xfg)

The "Glide on over some Rainbows" module allows you to download and transfer files to perform a rainbow sequence animation on the Circuit Playground Bluefruit.

Press the "Download Bundle" button to download and view the files necessary to run your project.
Press "Send Bundle" to transfer your downloaded project files to the Circuit Playground Bluefruit.
Voila! There you have, we've glided over some rainbows. Try out the other modules available.