

CircuitPython + hardware workshop

You arrive

We give you a platform

We give you examples

We give you ideas

We hack

What you get

- ESP32-S2 – dual-core MCU, USB, WiFi
- Four (4) buttons, one (1) blue LED
- An RGB LED (Neopixel)
- USB HID – keyboard, mouse, MIDI
- 128x64 monochrome OLED screen (SH1106, I2C)
 - Show your own images
- GPIO expansion header!

CircuitPython

- Derivative of MicroPython
- Developed by Adafruit, a hacker-friendly HW co
- Tons of libraries, examples, success stories
- Adafruit blog, newsletter, community

What can you build?

- Imagination is the limit
- Helpful internet-connected devices
 - Timetables, weather stations, countdown clocks, local time in diff. timezones
- Toys and robots – i.e.
- Macropads, BadUSB, password managers, TOTP dongles, WiFi detect
- Sound-producing devices – MIDI integration! + there's touch pins and way, way more!

How?

- Examples are on GitHub & on your Nugget drive
- There's tons of CircuitPython materials from Adafruit
- We will be going around and helping
- Play around with the examples, for a start
 - We got Game of Life!

Who we are

Retia

retia.io

Find us online!