







DESCRIPTION

Do you feel like you just don't have a CLUE? Well, we can help with that - get a CLUE here at Adafruit by picking up this sensor-packed development board. We wanted to build some projects that have a small screen and a lot of sensors. To make it compatible with existing projects, we made it the same shape and size as the BBC micro:bit and with the same edge-connector on the bottom with 5 big pads so it will fit into your existing robot kit or 'bit add-on.

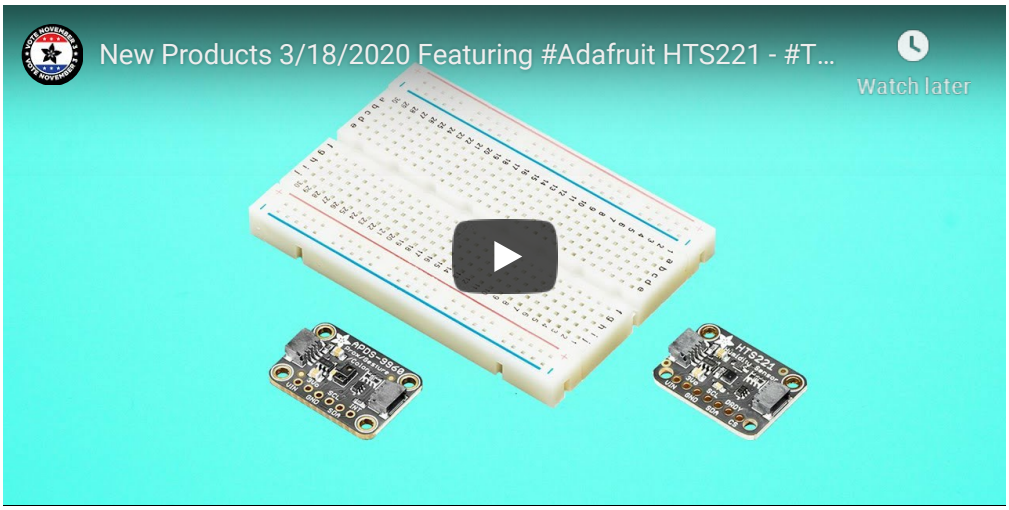
While the CLUE looks a bit like a 'bit it has totally redesigned-from-scratch technology:

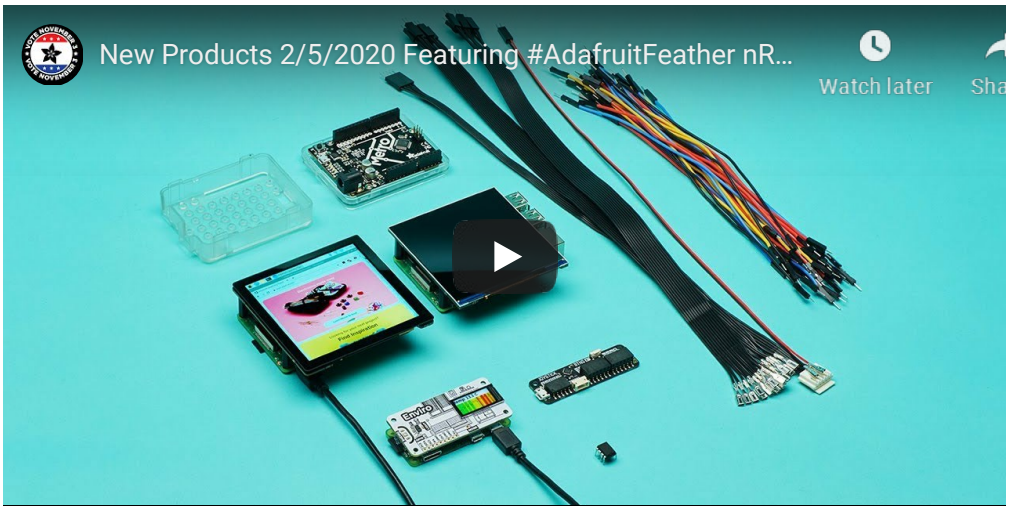
- **Nordic nRF52840 Bluetooth LE processor** - 1 MB of Flash, 256KB RAM, 64 MHz Cortex M4 processor
- **1.3" 240×240 Color IPS TFT display** for high resolution text and graphics
- **Power it from any 3-6V battery source** (internal regulator and protection diodes)
- **Two A / B user buttons** and one reset button
- Tons of sensors!
  - ST Micro series 9-DoF motion - LSM6DS33 Accel/Gyro + LIS3MDL magnetometer
  - APDS9960 Proximity, Light, Color, and Gesture Sensor
  - PDM Microphone sound sensor
  - SHT Humidity
  - BMP280 temperature and barometric pressure/altitude
- **RGB NeoPixel** indicator LED
- **2 MB internal flash storage** for datalogging, images, fonts or CircuitPython code
- **Buzzer/speaker** for playing tones and beeps

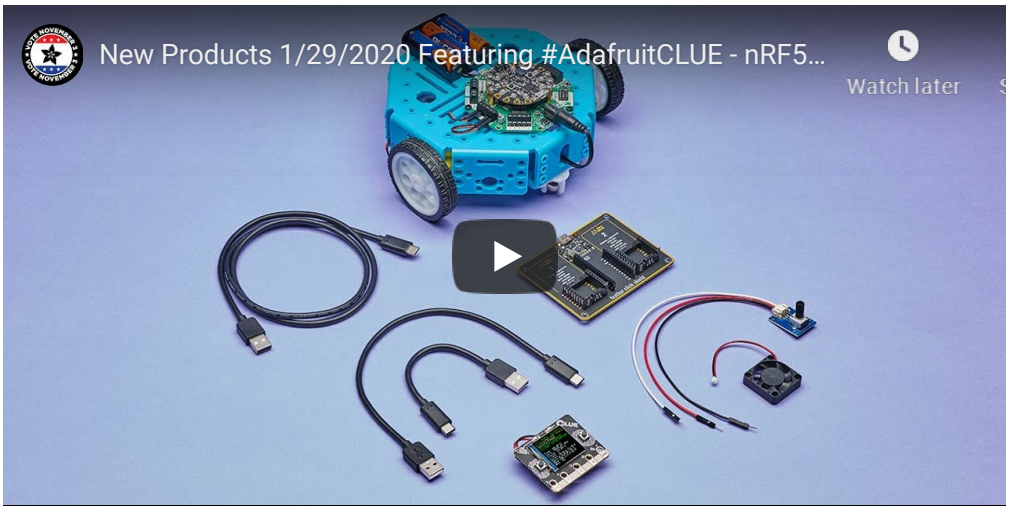
- **Two bright white LEDs** in front for illumination / color sensing.
- **Qwiic / STEMMA QT connector** for adding more sensors, motor controllers, or displays over I2C. You can plug in GROVE I2C sensors by using an adapter cable.
- **Programmable with Arduino IDE or CircuitPython**

Please note that at this time there is **no MakeCode or Scratch support** for the nRF52840 chipset (of course, we'd love to see MakeCode but there is no ETA when it may be added). While the CLUE is the same outline and we did our best to make the edge-connector pins match up, most cases for the 'bit wont fit the CLUE, and code may not be immediately compatible without adjustment, especially since only Arduino and CircuitPython are supported at this time.

The CLUE is designed for projects that use a ton of sensors - and they're all built in! So you can start exploring your world, measuring, logging and learning. You can transmit data over Bluetooth to a computer or mobile device for data plotting and logging, or save it to the built in storage. Why did we call it CLUE? Check out our post!







TECHNICAL DETAILS

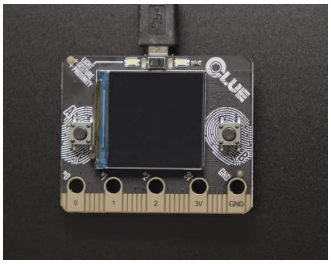
Revision history:

- **As of March 13, 2020** we've made some changes from the previous ALPHA version to move the screen slightly so its a little more centered, and some components moved around to account for the screen connector move. The design is otherwise identical to ALPHA (hardware, shape, pinout, etc)

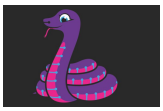
Product Dimensions: 51.7mm x 42.2mm x 12.3mm / 2.0" x 1.7" x 0.5"

Product Weight: 13.0g / 0.5oz

LEARN



Primary Guide: Introducing Adafruit CLUE
Get a clue with the Adafruit CLUE!



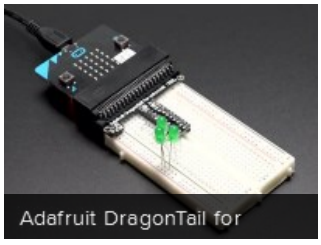
Welcome to CircuitPython!
New to CircuitPython? This is the place to start.

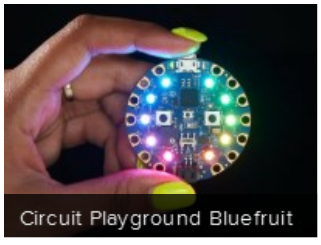
Bluetooth LE Sensor Nodes to Raspberry Pi WiFi Bridge
Send data from Bluetooth LE sensors to Adafruit IO with a Raspberry Pi bridge

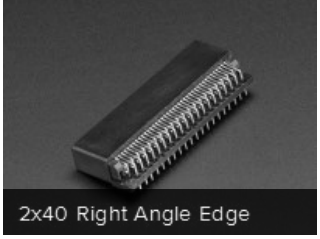
CLUE Text Telephone Transmitter
Communicate with a TTY machine using acoustic coupling and optional BLE input

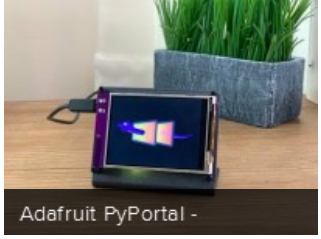
SEE ALL GUIDES

MAY WE ALSO SUGGEST...






2x40 Right Angle Edge


Adafruit PyPortal -

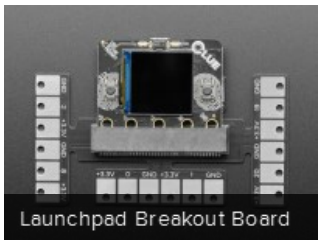

Adafruit Feather nRF52840


BBC micro:bit


KittenBot Meowbit - Codable


Adafruit LSM6DSOX 6 DoF


Pimoroni Enviro – Indoor


Launchpad Breakout Board


Seeed Wio Terminal


Kitronik Inventor's Kit for


Adafruit 1.3" 240x240 Wide


Adafruit ICM-20649 Wide

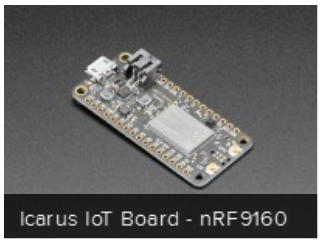

Coming Soon! BBC micro:bit

Make: Magazine - The Rise


Pimoroni Enviro +


Adafruit Bonsai Buckaroo -

AdaBox015 - COME TO


Icarus IoT Board - nRF9160

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