



## Adafruit PyGamer Starter Kit

PRODUCT ID: 4277

**Please note: you may get a royal blue *or* purple case with your starter kit (they're both lovely colors)**

What fits in your pocket, is fully Open Source, and can run CircuitPython, MakeCode Arcade or Arduino games you write yourself? That's right, it's the Adafruit PyGamer! We wanted to make an entry-level gaming handheld for DIY gaming, and maybe a little retro-emulation. It's not the fastest and best of everything, but it is an all-in-one dev board with a lot of possibilities!

Here's a pack of parts for all the parts you need to get started, even a lovely storage case. Now you've got no excuse for not digging in. Makes for a great workshop pack, hackerspace kit, or gift.

The PyGamer is powered by our favorite chip, the ATSAM51, with 512KB of flash and 192KB of RAM. We add 8 MB of QSPI flash for file storage, handy for images, fonts, sounds, or game assets.

On the front you get a 1.8" 160x128 color TFT display with dimmable backlight – we have fast DMA support for drawing so updates are incredibly fast. A dual-potentiometer analog stick gives you great control, with easy diagonal movement – or really any direction you like. There are also 4 square-top buttons, which fit the square top button caps. The buttons are arranged to mimic a gaming handheld, with 2 menu-select buttons and 2 fire-action buttons. There are also 5 NeoPixel LEDs to dazzle or track activity.

On the back we have a full Feather-compatible header socket set, so you can plug in any FeatherWing to expand the capabilities of the PyGamer. There are also 3 STEMMA connectors – two 3-pin with ADC/PWM capability and one 4-pin that connects to I2C – you can use this for Grove sensors as well.

For built in sensors, there's a light sensor that points out the front, and a 3-axis accelerometer that can detect taps and free-fall. To make bleeps and bloops, plug in any set of stereo headphones. For projects where you need more volume, you can plug in the 8 ohm speakers. The PyGamer will auto-switch to headphones when they're plugged in, otherwise play through the speaker.

You can power the PyGamer from any of our LiPoly batteries, but we like this 350mAh one which will fit into the acrylic case. An on-off switch will save battery power when not in use. Or power from the Micro USB port – it will also charge up the battery if one is attached.

#### **Kit Includes:**

- Adafruit PyGamer PCB
- Adafruit PyGamer Acrylic Enclosure Kit
- Mini Oval Speaker with Short Wires – 8 Ohm 1 Watt
- Lithium Ion Polymer Battery with Short Cable – 3.7V 350mAh
- Plastic Button Caps for Square Top (10-pack) – 8mm Diameter
- Maker-Friendly Zipper Case (May be purple or royal blue)

**No soldering required!** Assembly takes an hour or so.

<https://www.adafruit.com/product/42777-26-19>