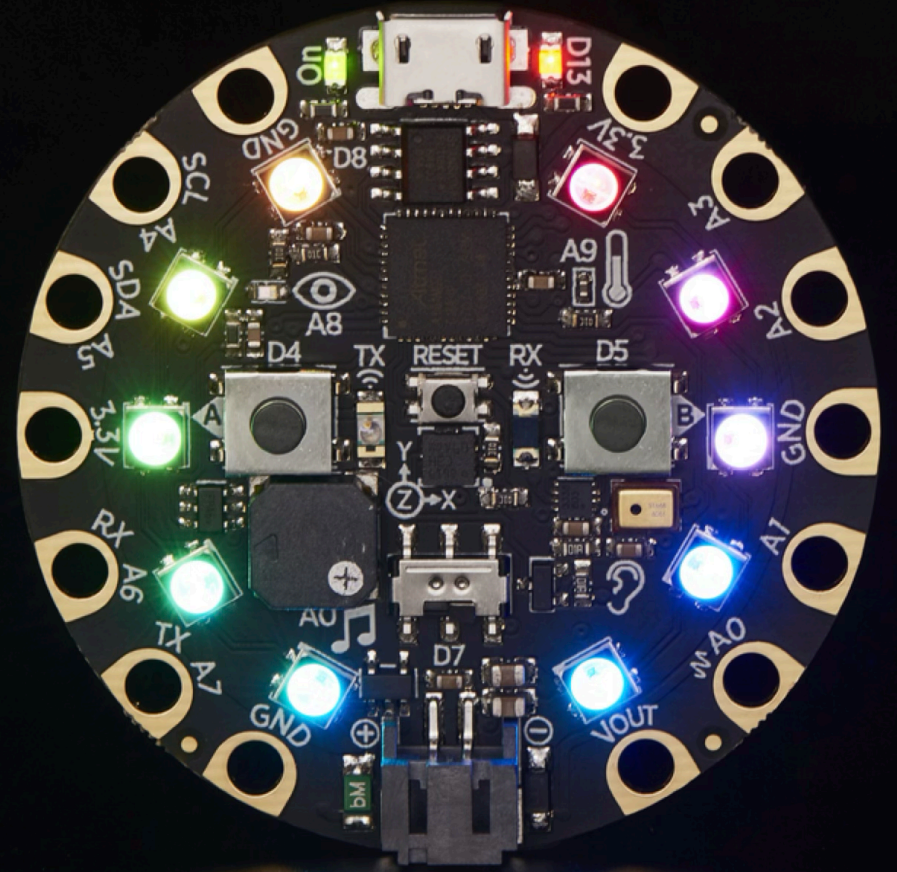


Notes on Random topics

Circuit Playground Class for Spark Makerspace

Kent Quirk, Feb-Mar 2025



NeoPixels

- Smart LEDs
- Each has an address, and they're connected end-to-end serially. You can put thousands on one string.
- It takes time to move information along the chain.
- Simply writing an integer or tuple to `cp.pixels[4]` sets its value (where 4 is the number of the pixel you want to set)
- But if you set a bunch, use `cp.pixels.auto_write=False` and then `cp.pixels.show()` to write them all at once -- it's literally 10x faster.

Servos

- Position of the servo is based on the duty cycle of the incoming signal.
- PWM == Pulse Width Modulation
- These chips can do that really cheaply

Infrared (IR) Remote Send & Receive

- Standard IR signals are pulses of a carrier signal (usually around 40 KHz)
- Different manufacturers use different pulse patterns
- There's a s