From Paper Circuits to Arduino
Teaching Electronics in the Library

Presented by LibraryLinkNJ, TechFest 2015
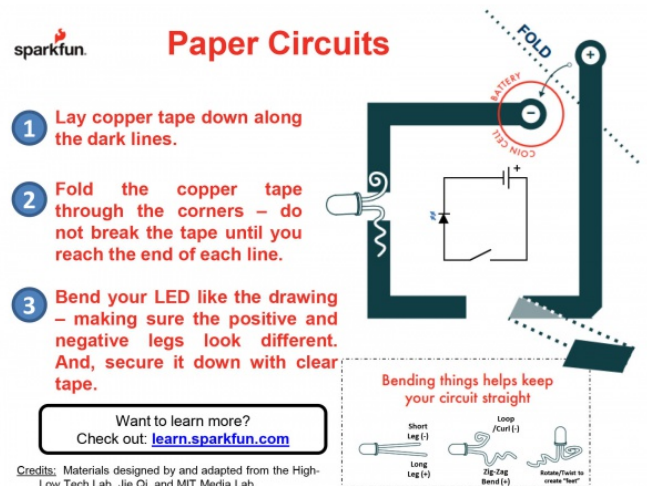**GCLS Mullica Hill Library - March 24, 2015**

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Paper Circuits

Users create a very basic electrical circuit on a piece of cardstock using copper tape, an LED, and a battery.

Cost for project is about $2.00 per person.

Sparkfun Circuit Cards - http://sfe.io/r65

Snap Circuits

Inexpensive and easy to use kit teaches users of all ages basic electronics concepts. Parts snap together--no tools are required. Basic kits cost about $25.00 each. These are great for drop-in labs and scheduled programs.

Official Site
http://www.snapcircuits.net/

littleBits

Modular bits that snap together with magnets. Clever design, but more expensive than Snap Circuits. Basic kit cost is $99.00.
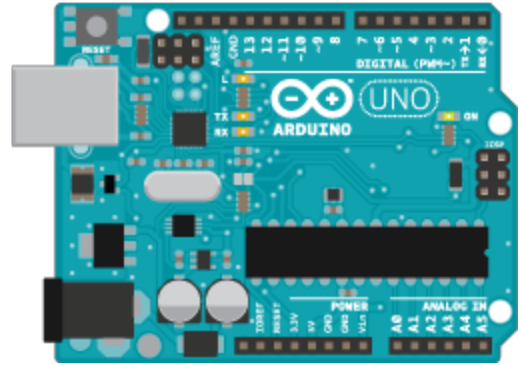
Official Site
http://littlebits.cc/

Arduino

Arduino is an open-source platform used for building electronics projects. Arduino consists of both a physical programmable circuit board (often referred to as a microcontroller) and a piece of software, or IDE (Integrated Development Environment) that runs on your computer, used to write and upload computer code to the physical board. (https://learn.sparkfun.com/tutorials/what-is-an-arduino)
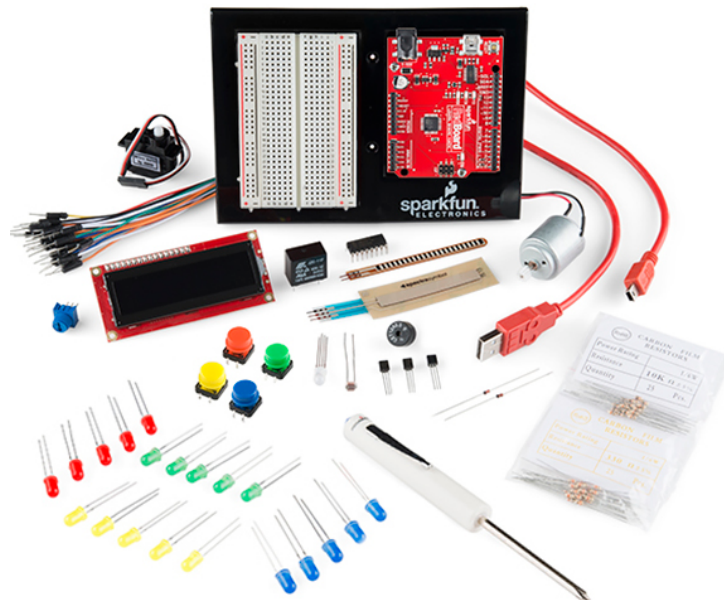
Ardunio - Official Site
http://www.arduino.cc/

What is an Arduino? (Sparkfun)
https://learn.sparkfun.com/tutorials/what-is-an-arduino

Sparkfun Arduino Inventor's Kit
https://www.sparkfun.com/products/12060

Teaches basic electronics and coding concepts through a series of hands-on experiments. Retail price for each kit is $99.00.

123D Circuits (Autodesk) - Free online Arduino simulator
http://123d.circuits.io/

Codebender - Online Arduino Development Environment
https://codebender.cc/

ChromeDuino - Create Arduino-compatible sketches on Chromebook or in Chrome Browser
(In Chrome Web Store)