MAKERS

The First

Fayetteville Free Library's Fabulous Laboratory

5 3D printers, a 3D scanner, a laser cutter, a vinyl cutter, sewing machines, hand tools, paper craft tools, jewelry making tools and kits, knitting & crochet kits.

H.Y.P.E. Teen Center - Helping Young People Excel

Bike Tech, Electronics, Sewing/Wearables, Arduino Robotics, Graphic Design

LibraryFarm - Northern Onondaga Public Library

"Anyone can "check out" a plot! The purpose of the Library Farm is to provide a place for the community to grow, share and learn about food literacy, and organic, sustainable gardening"

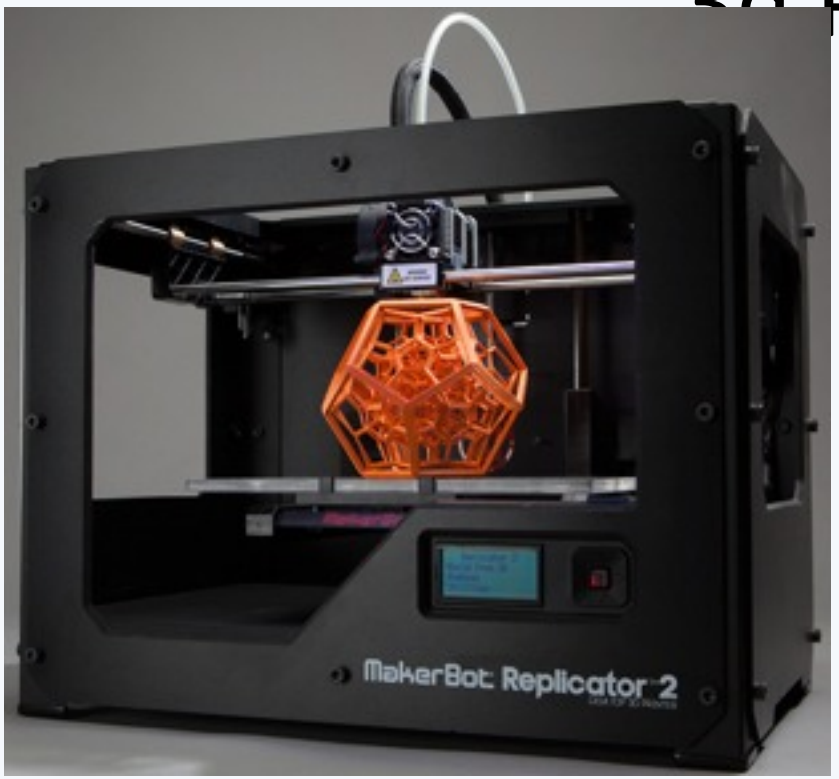
the studio

StoryLab

YOUmedia Chicago
Youth-powered 21st century learning

BUBBLER

3d Printers

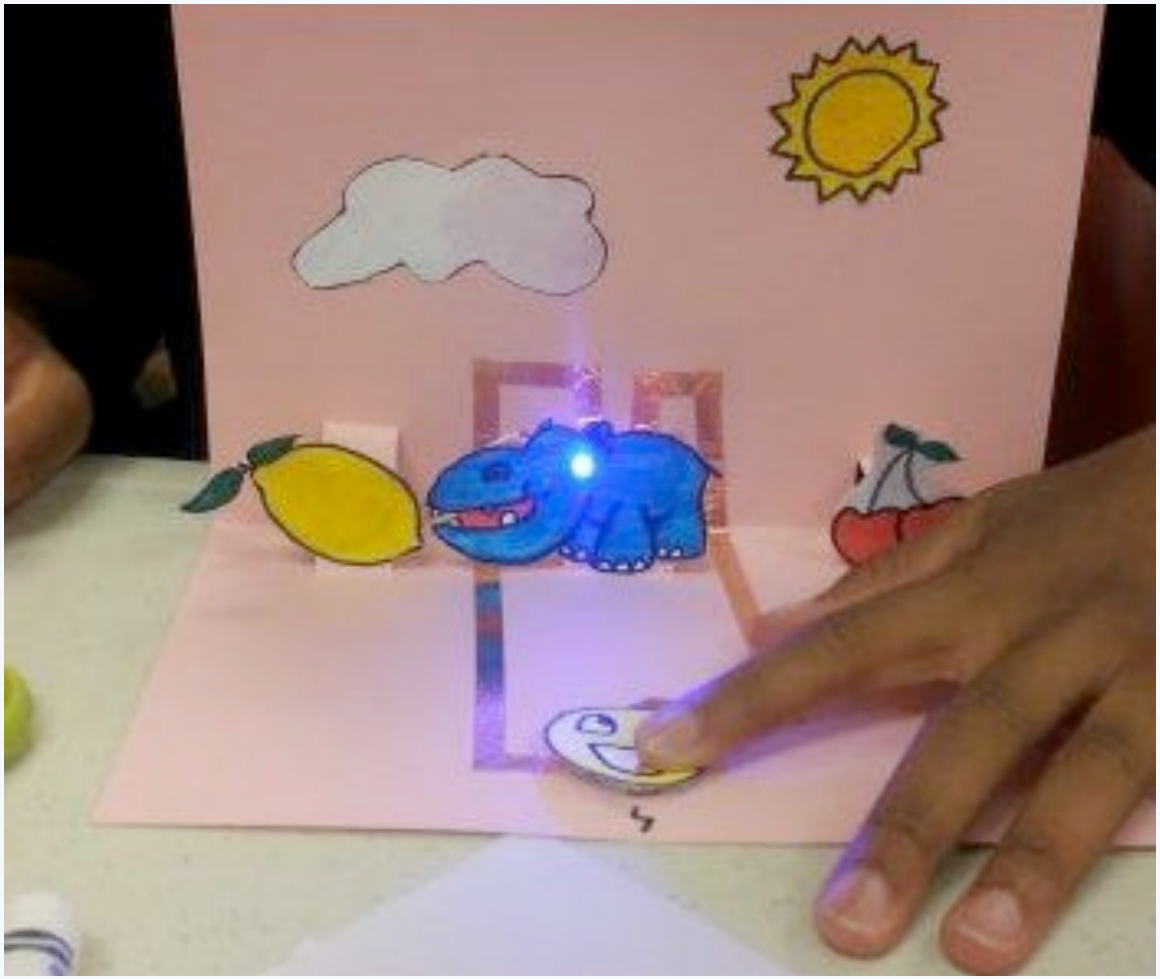


Coding

Scratch - With Scratch, you can program your own interactive stories, games, and animations — and share your creations with others in the online community.
Scratch helps young people learn to think creatively, reason systematically, and work collaboratively — essential skills for life in the 21st century.

Processing - Processing is an open source programming language, development environment, and online community. It is used by visual designers, artists, and architects to create their works. Used to

- create projected stage designs for dance and music performances
- generate images for music videos and film
- export images for posters, magazines, and books
- create interactive installations in galleries, in museums, and on the street.



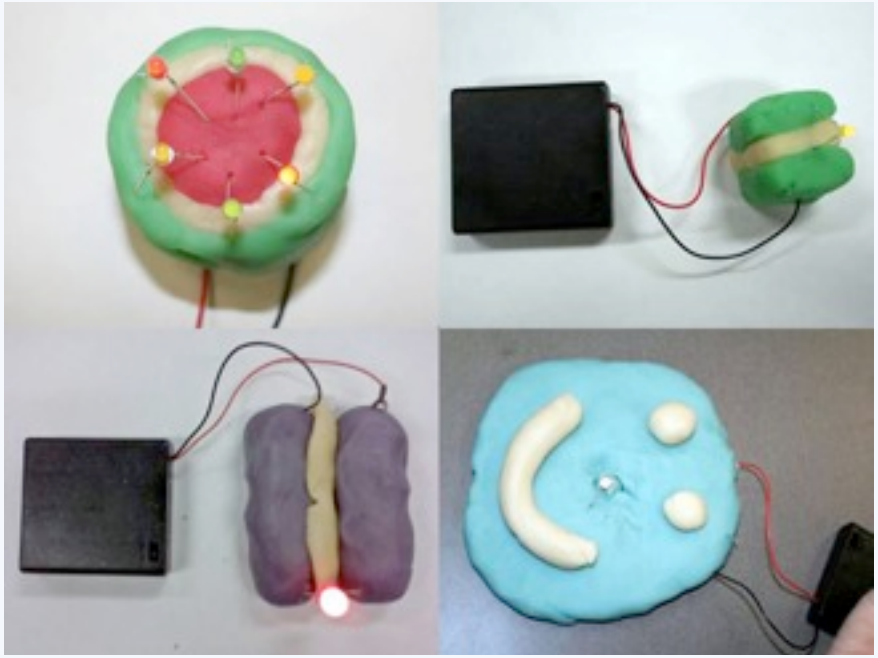
Pop-up Card

Copper Tape $2.95 5mm x 50ft

Light-emitting diodes (LEDs) $.35 each

Coin Cell Battery $1.95

Construction paper, markers, scissors, glue stick, tape



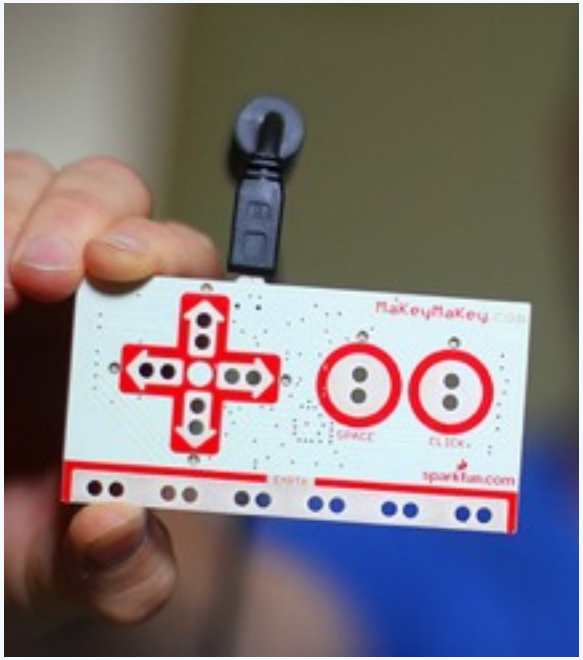
Teach kids about electricity and electronics by forming circuits out of Play-Doh-like dough — with two varieties, conductive and insulating.

Conductive Dough: Water Flour Salt Lemon juice, Vegetable oil

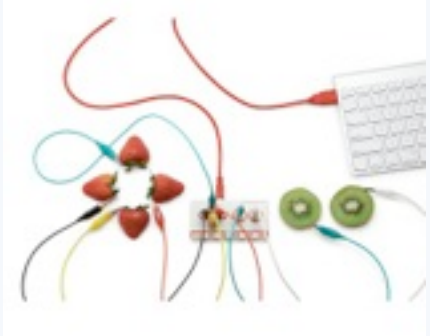
Insulating Dough: Flour, Sugar, Vegetable Oil, Distilled Water *(with regular tap water, the resistance of the dough will be lower.)*

LEDs

Battery

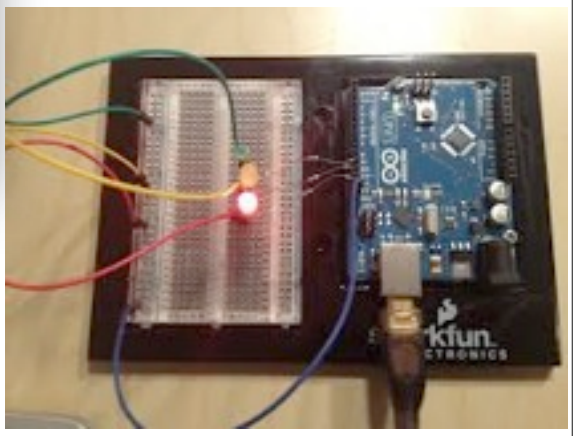


MaKey MaKey



Armed with a MaKey MaKey, Alligator Clips, and a USB Cable, you can turn everyday objects into touchpads and combine them with the internet. MaKey MaKey sends the computer a keyboard or mouse message.

Ketchup, Pencil Graphite, Finger Paint, Lemons, Plants, Coins, Your Grandma, Silverware, Anything that is Wet, Most Foods, Cats and Dogs, Aluminum Foil

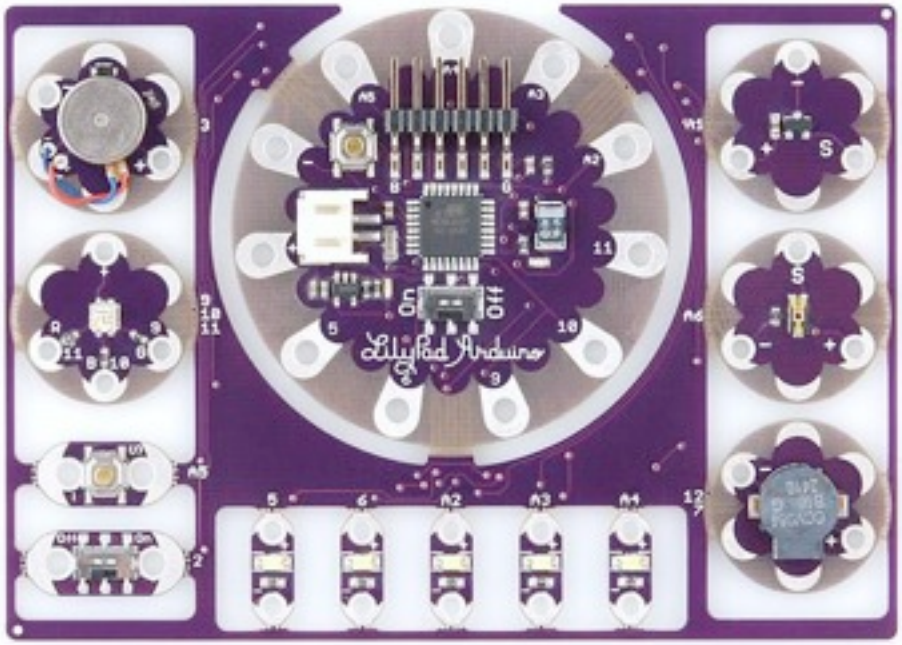


Arduino

"Arduino is a physical computing platform tool for making computers that can *sense and control* more of the physical world than your desktop computer. It's an open-source *physical computing platform* based on a simple microcontroller board, and a development environment for writing software for the board.

Arduino can be used to *develop interactive objects*, taking inputs from a variety of switches or sensors, and controlling a variety of lights, motors, and other physical outputs. Arduino projects can be stand-alone, or they can communicate with software running on your computer."

Library as Makerspace, http://librarymakerspace.blogspot.com/



LilyPad

LilyPad is a set of sewable electronic modules designed to help build soft interactive textiles. The modules–including a small programmable computer called can be stitched together with conductive thread to create interactive garments and accessories.

LilyPad can sense information about the environment using ***inputs*** like light and temperature sensors and can act on the environment with ***outputs*** like LED lights, vibrator motors, and speakers.

http://lilypadarduino.org/#sthash.HNAVvLmW.dpuf

What's Exciting

Democratization of knowledge and information

Democratizing innovation

Participatory learning

Multigenerational programming

Supporting STEM/STEAM education

Integrating art and science

Knowledge creation not just consumption

Preparing citizens for a changing workforce

Fueling economic development and entrepreneurship

Critical thinking skills

Problem solving skills

Learning by doing

Thinking by doing

Physical Computing – connecting the physical world to the digital world

Citizen science

Amateur engineers

Inventors

Innovators

Confidence-building

Community building

Libraries are safe places where there are no consequences for failing.

SparkFun Tour Bus

Librarians Learn Arduino

Soldering

Deconstructing Electronics

Craftsbury Public Library

Town Population: 1,180

Library Size: 3,000 Sq. Ft.

Arduino

Craftsbury Public Library

Arvin A. Brown Library, Richford
Make it and Take it Bag-a-Rama

We received a donation of a sewing machines for patrons to use at the library. We celebrated with a "make it and take it" bag-a-rama. Mandy Mayotte, who makes and sells bags on etsy, came and helped everyone construct a bag made from donated material or recycled clothing.

Town Population: 2,505
Library Size: 2,750 sq. ft.

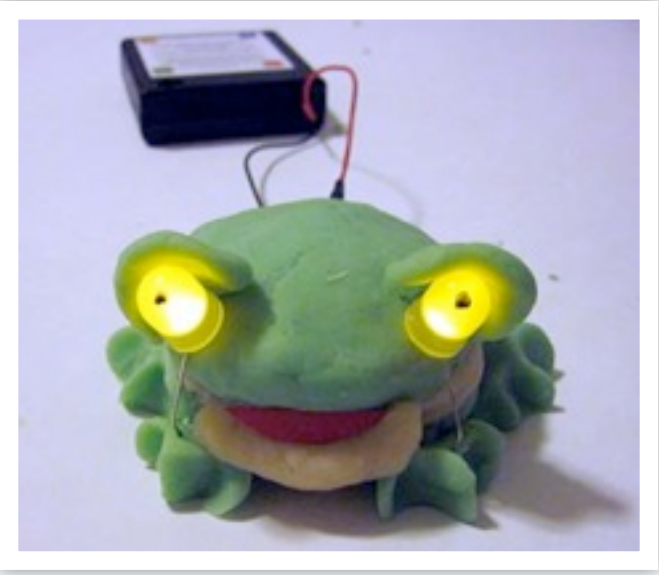
Marble Run

Charlotte Library

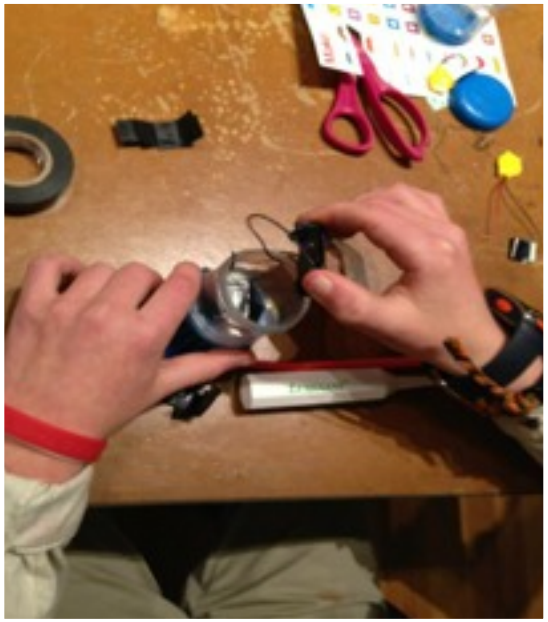
Town Population: 3,739

Library Size: 2,400 sq. ft.

ARDUINO



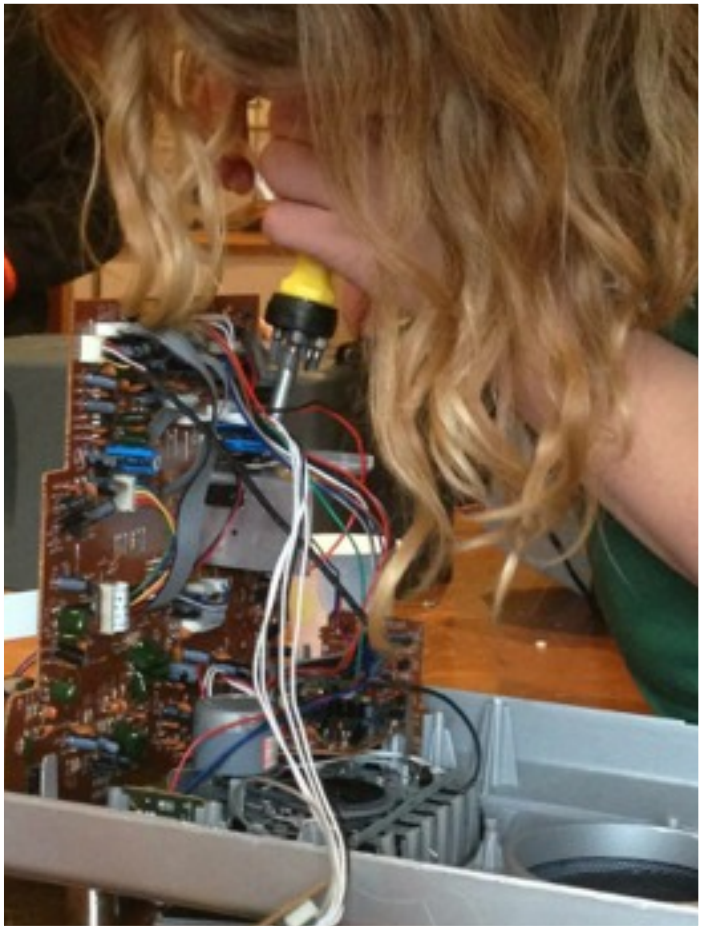
Squishy Circuits in a School Library



Windsor Public Library

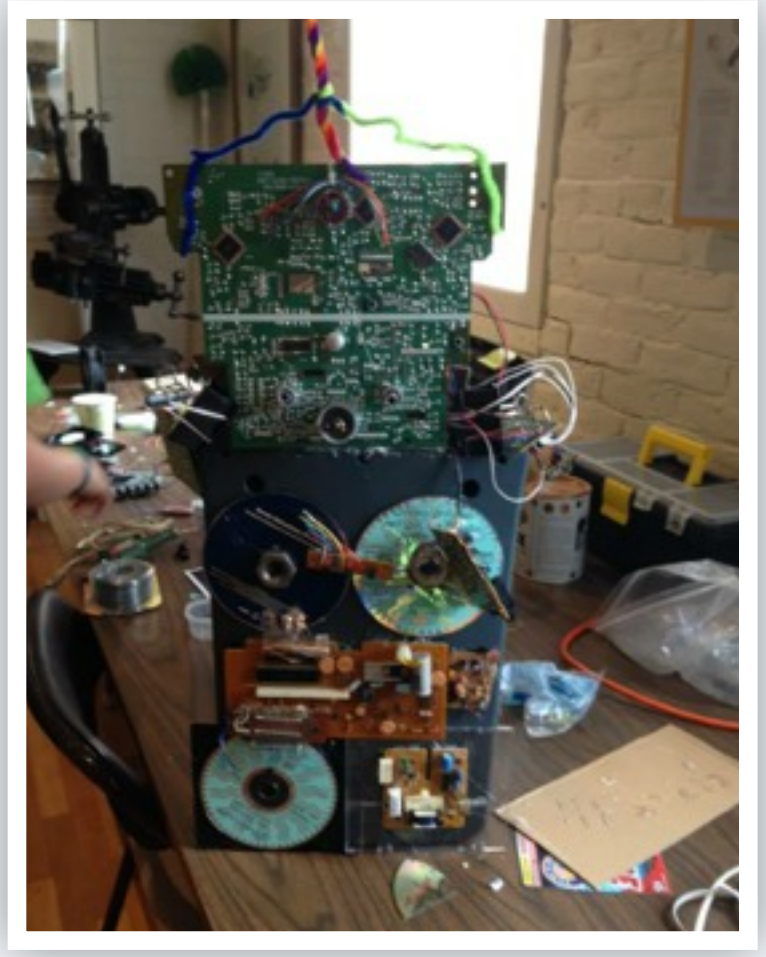
Collaborated with nearby museum for a program building robots using toothbrush motor, battery, wire, scrub brush, and electrical tape.

Town Population: 3575
Library Size: 3600 sq ft



Breaking It

Windsor Public Library



Making It

Windsor Public Library

Miscellaneous Information

facebook

Vermont Libraries as Makerspaces

Please Join

Vermont Libraries Spark a Culture of Innovation:

Summer Reading Program Grant

E21: A Conference

E21con.org

E21 will begin the evening of Thursday, July 31st and run through the afternoon of Saturday, August 2nd

$200 registration fee includes lodging, breakfast, and lunch for two days.

What are you making in your libraries?

THANK YOU!

Mara Siegel
mara.siegel@state.vt.us

Dandelion Painting
by
Jie Qi

"Interactive painting of a dandelion field. When you blow on the white puffs, the seeds disperse and generate new flowers. These flowers begin as yellow dandelions, but after a few moments bloom into responsive white seed puffs."
http://technolojie.com/pu-gong-ying-tu-dandelion-painting/