Applied Learning, STEM+CS

What is Makey Makey?

@BrowardSTEM

#BrowardCODES
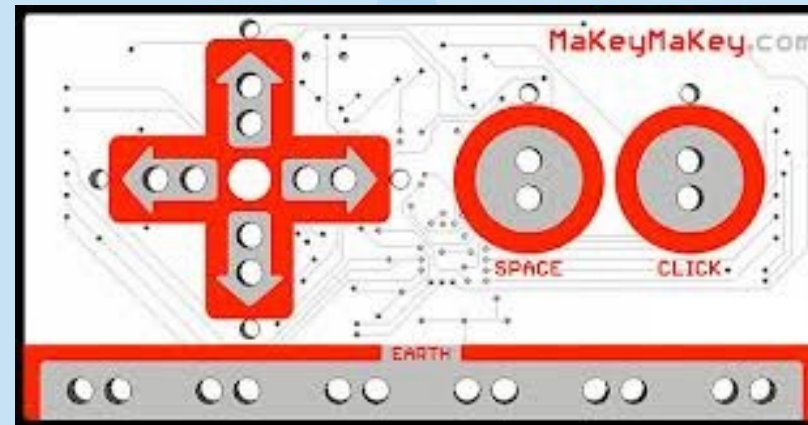

Banana Piano

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BROWARD
County Public Schools
Established 1915

Makey Makey is an invention kit for the 21st century. Turn everyday objects into touchpads and combine them with the internet. It's a simple circuit board for beginners and experts doing art, engineering, music, social studies, language arts, and everything in-between.

The board connects via USB and is recognized as a USB mouse or keyboard
The board will work on any PC, Mac, and most tablets and smart phones

MAKEY MAKEY

![Makey Makey logo]

HOW

Alligator clip to an object. When you touch that object, the computer thinks you're pressing the keyboard.

By mimicking a keyboard and mouse the Makey Makey lets you control any computer program with everyday objects.
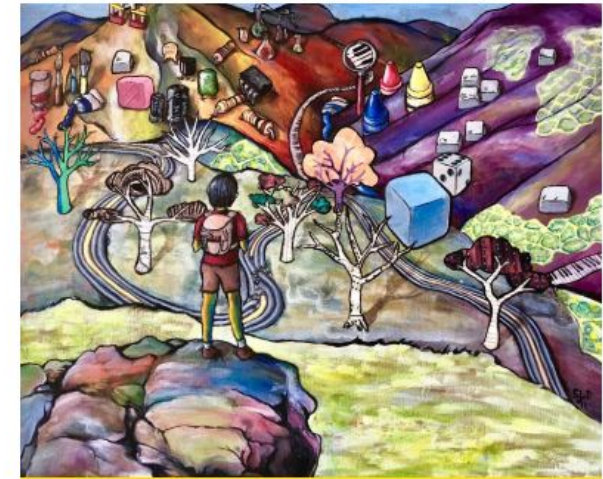
WHO

Teachers, librarians, and their students are inventing, coding, and creating with Makey Makey without any previous experience.

While working on Scratch with the Lifelong Kindergarten group at MIT Media Lab, Jay Silver and Eric Rosenbaum launched Makey Makey on Kickstarter.

About Us ▶

WHY

We believe that everyone is creative, inventive, and imaginative. We believe that everyone can create the future and change the world. So we have dedicated our lives to making easy use invention kits. With Makey Makey, the world is your construction kit.
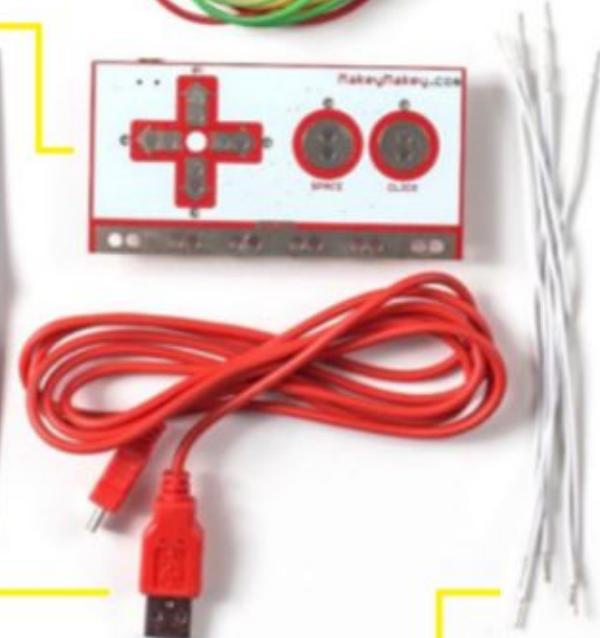
https://makeymakey.com/

HOW, WHO, WHY

MAKEY MAKEY BOARD 7 ALLIGATOR CLIPS INSTRUCTIONS

https://makeymakey.com/
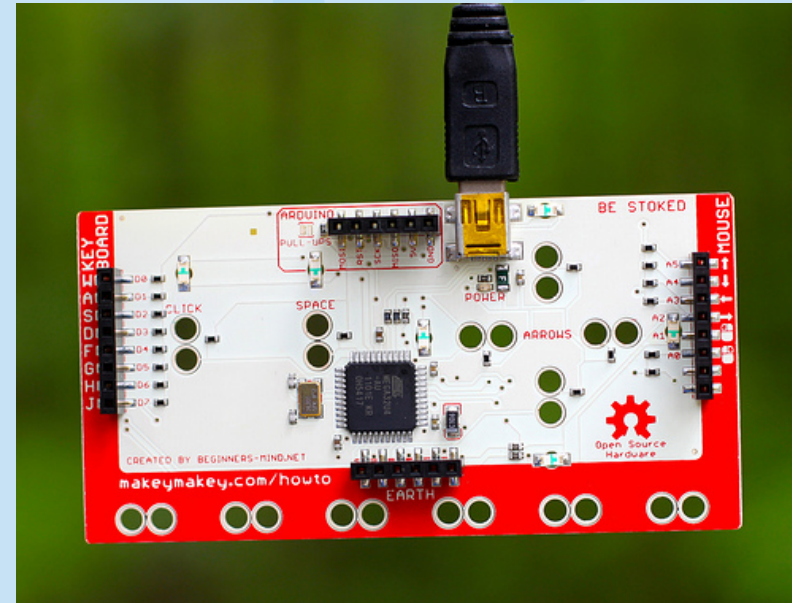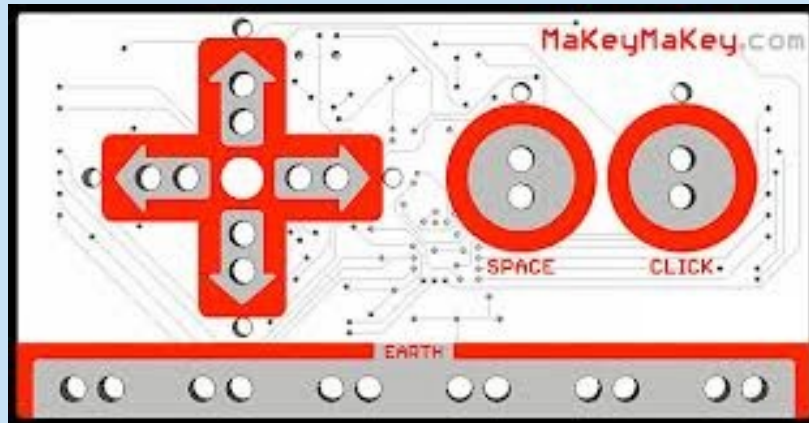
USB CABLE 6 CONNECTOR WIRES

KIT PARTS

The Makey Makey board comes with a number of premapped keys representing mouse or keyboard clicks

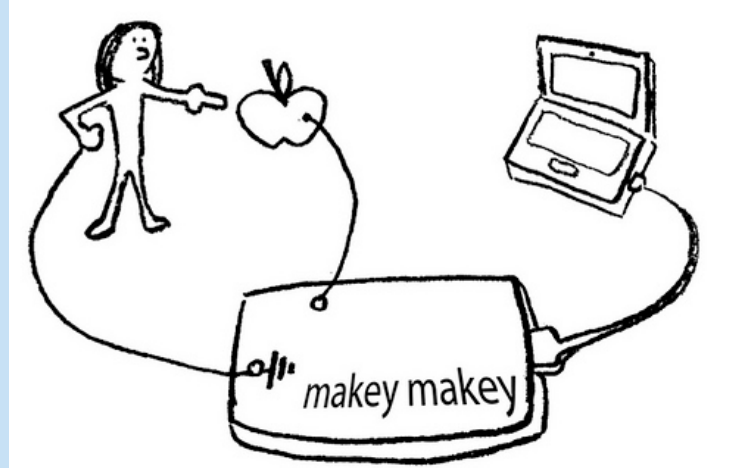You have Up, Down, Left, Right, Space and Click

On the back you have additional outlets for the letter keys W, A, S, D, F, G

In order to register a key strike they must be connected to the earth along the bottom

- Alligator Clip and wires can be used to connect the board

- Connections can be made via a large range of conductive materials

- When a connection is made the computer registers a key strike

- No additional software is required to make the board work

- Makey Makey works with any program or website that accepts keyboard and mouse inputs.

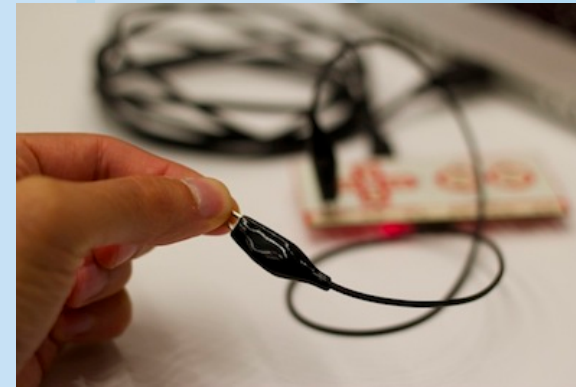- Scratch is an easy to use drag and drop programming that can be used with Makey Makey.
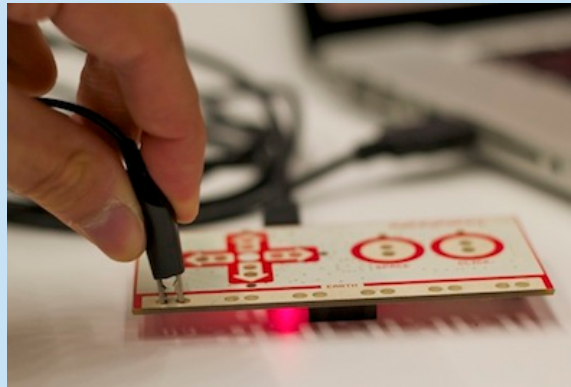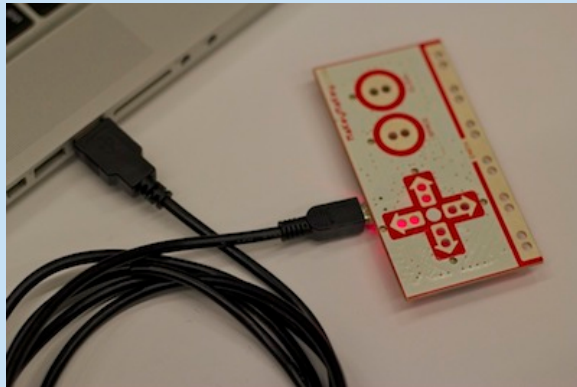
Requires 4 leads to the Up, Down, Left, Right and 1 to the Earth

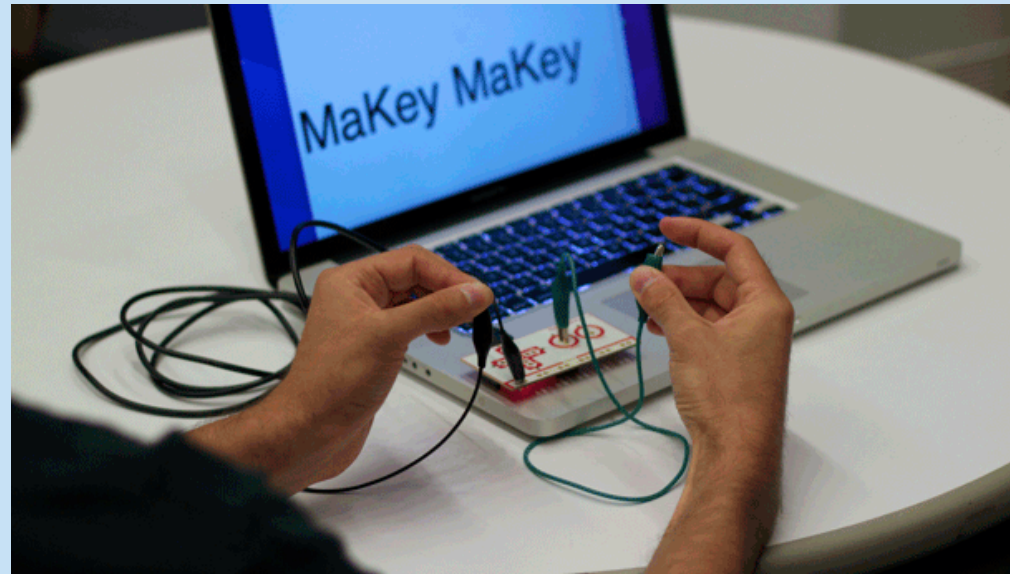Now connect the Makey Makey to your computer using the USB cable

The device will be detected as if it is a USB keyboard or mouse

Connect crocodile clips to Earth and the 4 keys

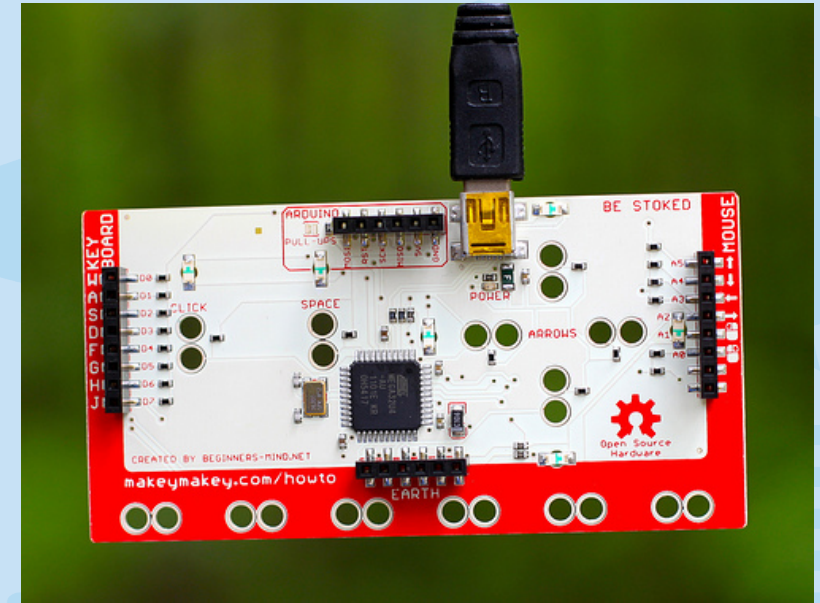Touch the earth wire and one of the Key wires to register the input

- **To test open up computer/tablet**

- **Test that the cursor can be moved by the keys**

USING THE BACK OF THE BOARD

- Disconnect the leads

- Turn the Makey Makey over

- On the left side there are a set of inputs labelled WASDFG

- These represent the letter keys on the keyboard

- Make some PlayDoh letters

- Use the white wires with stripped ends or cut some wires and strip the ends

- Connect the wires to each letter

- Also connect a wire to a separate piece of PlayDoh representing the earth

Sample connectors you can use:

- Pieces of Fruit
- Lines of graphite drawn on paper
- Liquids
- Plants with the wire in the soil and touching a leaf
- Foil and other metal objects
- People
- Use your own imagination

Scratch Piano for use with Makey Makey

http://scratch.mit.edu/projects/3197818/

Other musical instruments you can attach to Makey Makey

http://ronwinter.tv/drums.html

http://makeymakey.com/bongos/

Guitar Makey Makey remix (RMBroward) - https://scratch.mit.edu/projects/258713679/

Dance Dance Revolution - Scratch V1.1 remix - https://scratch.mit.edu/projects/14044356/

Large Makey Makey - https://labz.makeymakey.com/cwists/preview/1294x

http://soundplant.org/

A list of scratch programs designed for Makey Makey - https://scratch.mit.edu/studios/223260/

Pacman - https://www.thepcmanwebsite.com/media/pacman_flash/

Banana Piano

For a copy of this presentation, go to:

http://tinyurl.com/STEMCS-MakeyMakey