

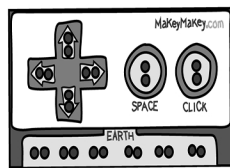
# START

## What's MaKey MaKey?

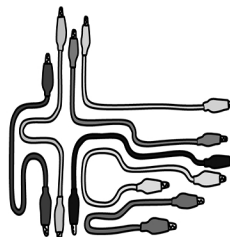
MaKey MaKey is an invention kit for the 21st century. You can use it to turn everyday objects into keys for your computer.

Learn more at [makeymakey.com/howto](http://makeymakey.com/howto)

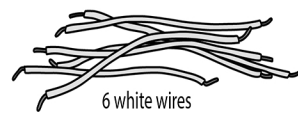
## What's in the box?



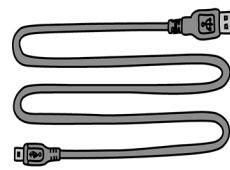
MaKey MaKey board



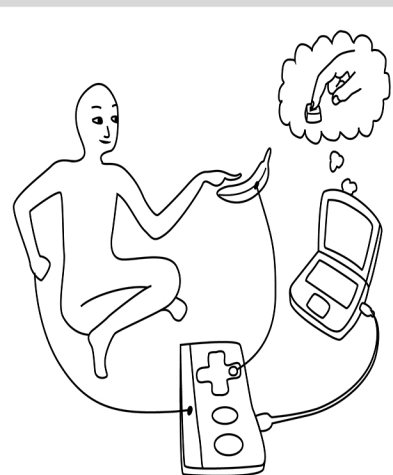
7 alligator clips



6 white wires

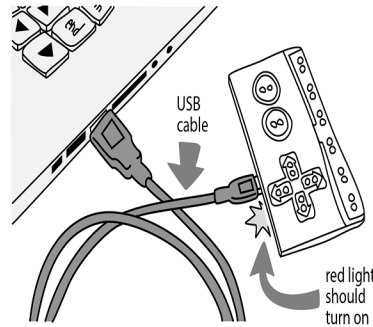


USB cable



# HOW TO USE IT

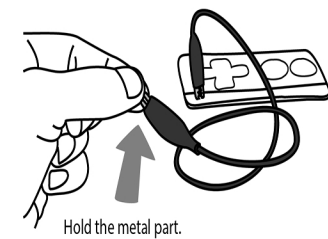
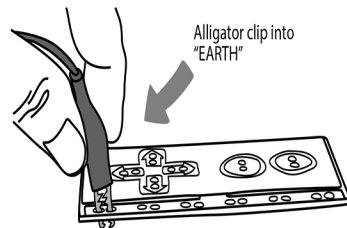
## 1. Plug board into computer.



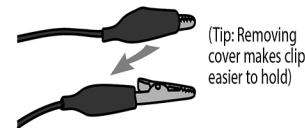
## 2. Close any pop-ups.



## 3. Connect yourself to EARTH.

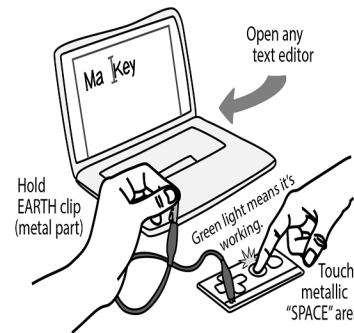


Hold the metal part.



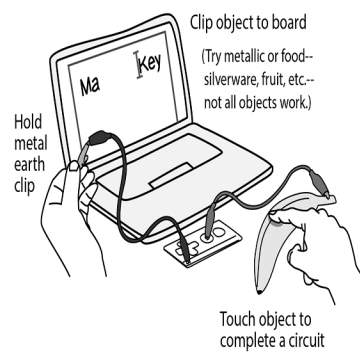
Tip: Removing cover makes clip easier to hold

## 4. Try the board

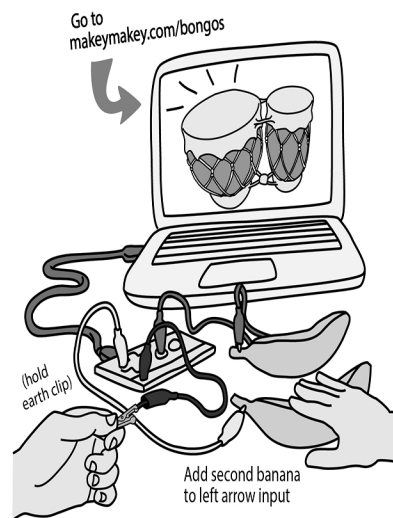


Your computer should think "Space Bar" was pressed. If not try pressing more firmly or licking your finger.

## 5. Connect everyday objects.



## 6. Make banana bongos!



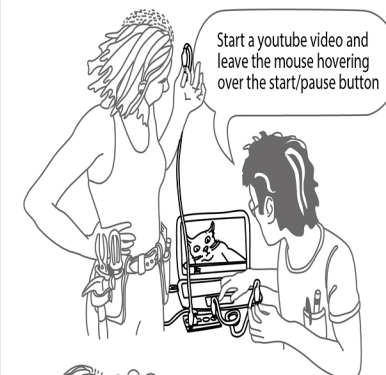
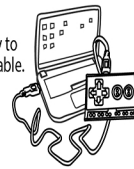
When you touch bananas, computer thinks you're pressing space bar and left arrow key. At this web page, those keys make noise on the bongos!

# IDEAS TO GET YOU GOING

## FIST BUMP REMOTE CONTROL

You need two people.

Connect MaKey MaKey to computer using USB cable.



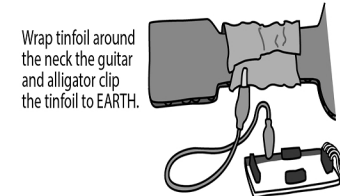
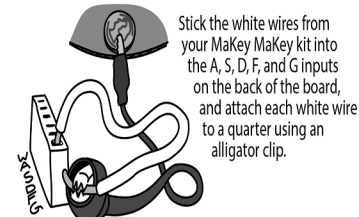
What else can your computer do with a CLICK?

How could you turn a group of friends into a drum kit?

## CARDBOARD GUITAR HERO

You need a piece of cardboard, tape, five quarters or other large coins, scissors, and some tinfoil.

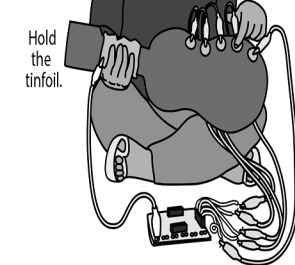
Cut a guitar shape out of cardboard. Make five little sticky-side-out circles of tape and attach the five coins to the edge of the guitar.



Plug the board into your computer (using USB cable).

Hold the tinfoil.

When you press the quarters, your computer should think you're pressing the A, S, D, F, and G keys.



Go to [makeymakey.com/hero](http://makeymakey.com/hero) start the game, and ROCK OUT



Could you make a controller that is: Huge? Tiny? For feet? Multi-person? Wearable?

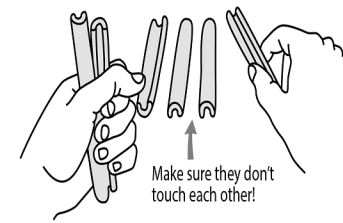
What other games can you play with it?

What else can you make it out of? A wooden ruler? A tennis racket? A real guitar?

## VEGGIE PIANO

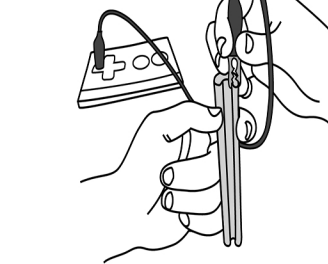
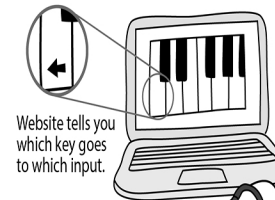
You need some veggies and a piece of tinfoil.

Arrange vegetables like piano keys.



Go to [makeymakey.com/piano](http://makeymakey.com/piano).

Clip the veggies to the inputs on the board.



Make yourself a tinfoil bracelet and connect it to "EARTH"--now you'll be able to play piano with both hands.

tight fit (touching skin)



Can you make your staircase or chairs into a piano?

What would a musical dinner party look like?

# HELP

## I can't get a key to press!

**PLUGGED IN?** Make sure your MaKey MaKey is plugged into the computer.

**RED LIGHT?** The MaKey MaKey should have a red light on the back showing that the power is on. Is it lit? If not something is wrong with the computer, the USB cable, or the circuit board.

**USB 3.0:** If the USB connector on your computer is blue, it's USB 3.0, and may not work with MaKey MaKey. Try using a USB 2.0 port.

**KEEP IT SIMPLE:** Try making a connection in the simplest way you can. One way is to connect an alligator clip to "earth" and then touch other end to "space."

**GREEN LIGHT?** When you make a connection, you should see an LED light up on the front of the MaKey MaKey.

**CONDUCTIVE?** When you are making a connection using everyday materials they need to be at least a little bit conductive. For example, play-doh, a banana, your skin, or aluminum foil should work, but plastic, most fabrics or paper will not work directly. You can always combine materials, for example by wetting the paper or putting play-doh onto the plastic.

## One of the keys won't stop pressing over and over!

**UNPLUG AND REPLUG?** Try unplugging the MaKey MaKey from your computer, then plug it back in again.

**BAD POWER SUPPLY?** If you are using a laptop, try disconnecting the power supply from the wall and use the battery instead.

**REBUILD?** Disconnect all of you alligator clips from the MaKey MaKey, then start reattaching them one by one. If your stuck key is still pressing, have a look at your connections. They might be touching accidentally somehow. Try taking things apart and putting them back together again.

**ACCIDENTALLY GROUNDED?** If one of the objects connected to the MaKey MaKey is your own body, then perhaps you are "grounded" to the earth via touching your computer's metal case, or by not wearing shoes. Take a step back and see what you are touching.

**SHORT CIRCUIT?** Perhaps one of the objects connected to the MaKey MaKey that you think is well insulated is not. For example, if you connect a banana to your MaKey MaKey and it's sitting on a wooden cutting board, is that cutting board moist or dry? If it's moist then perhaps all of your bananas on the cutting board are connected to each other through the cutting board. Try a dry table instead.

**TOO WET?** Is it raining? Is it extremely humid--are you in a rainforest? This can sometimes cause porous materials, such as paper or clothing, to become conductive.

## It works sometimes, but not other times. :(

Your materials might not be conductive enough. For example, if you are making a connection with your fingertip, it can help to moisten your skin by licking it.

Learn more at [makeymakey.com/howto](http://makeymakey.com/howto)