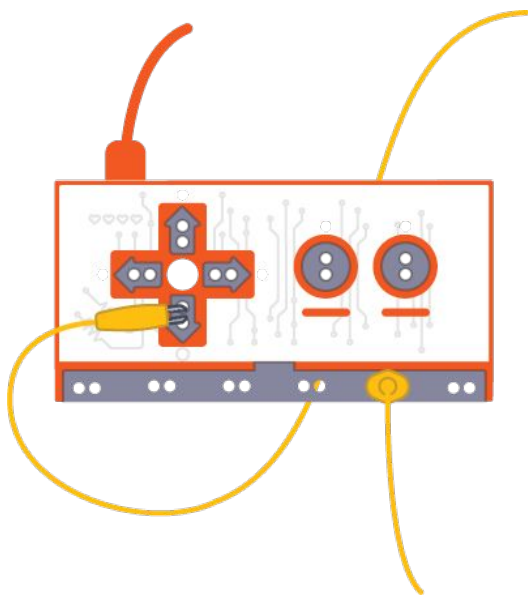




Makey Makey Cards



**Make projects that connect to the
physical world with Makey Makey!**



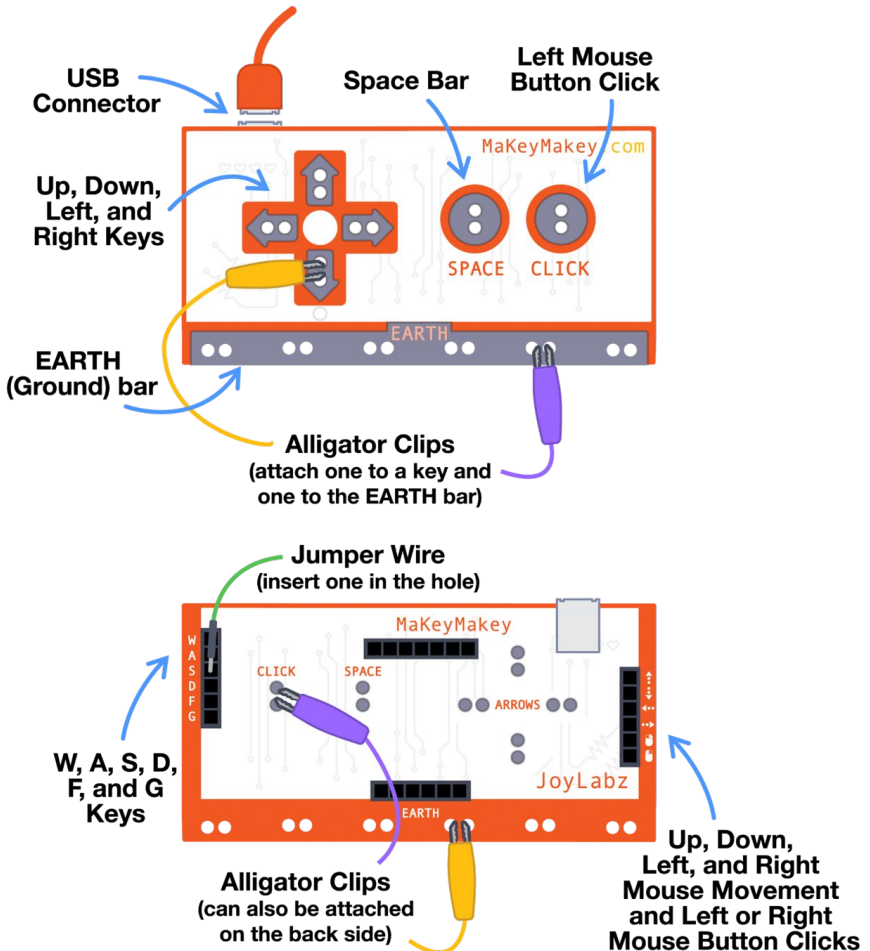
Cards in This Pack

- Makey Makey Hardware and Blocks
- Set Up Makey Makey

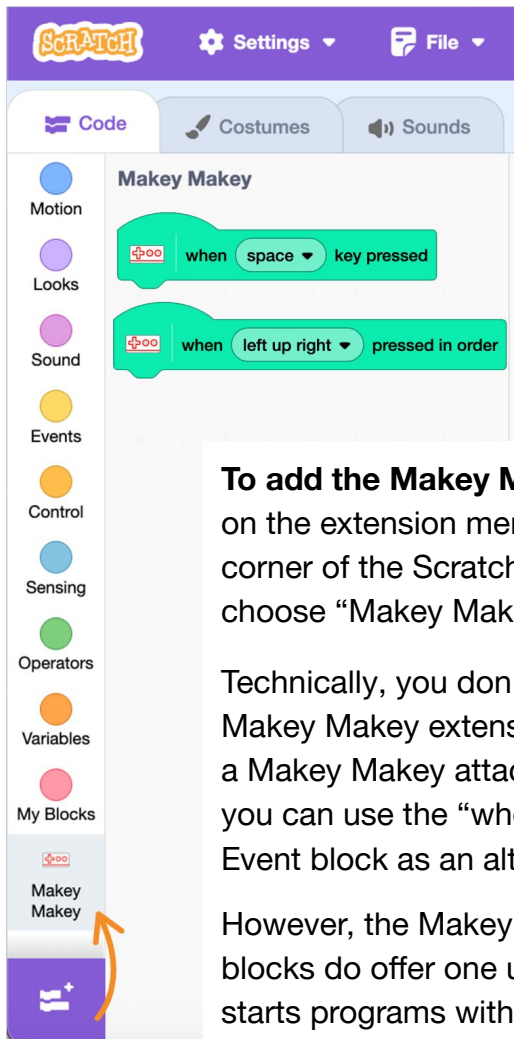
Try These Project Idea Cards in Any Order:

- Electric High Five
- Secret Code
- Foil Piano
- Art Comes Alive
- Create Your Own/Remix

Makey Makey Hardware



Makey Makey Blocks

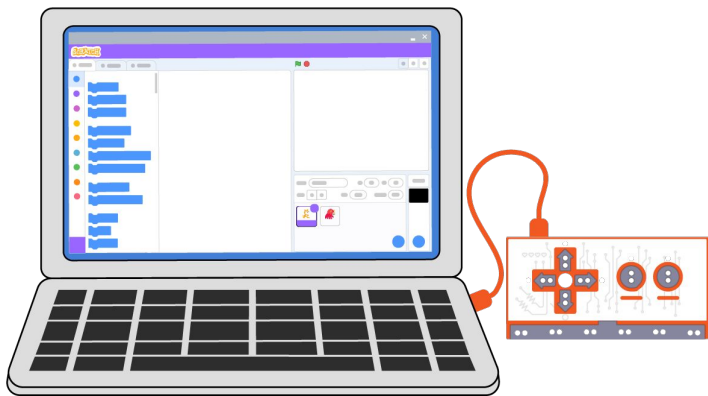


To add the Makey Makey extension, click on the extension menu in the lower-left corner of the Scratch project editor and choose “Makey Makey.”

Technically, you don’t have to use the Makey Makey extension blocks. If you have a Makey Makey attached to your computer, you can use the “when _ key pressed” Event block as an alternative.

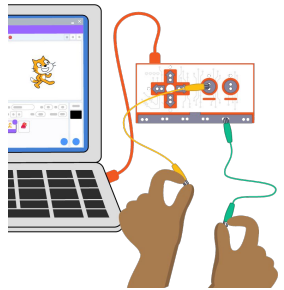
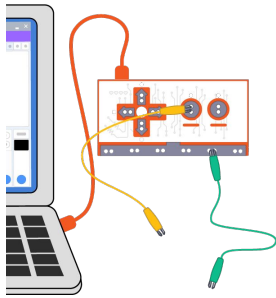
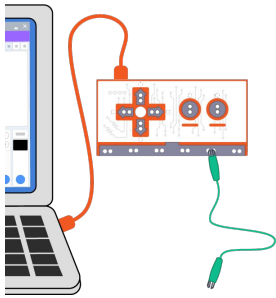
However, the Makey Makey extension blocks do offer one unique hat block that starts programs with a key sequence.

Set Up Makey Makey



Instructions:

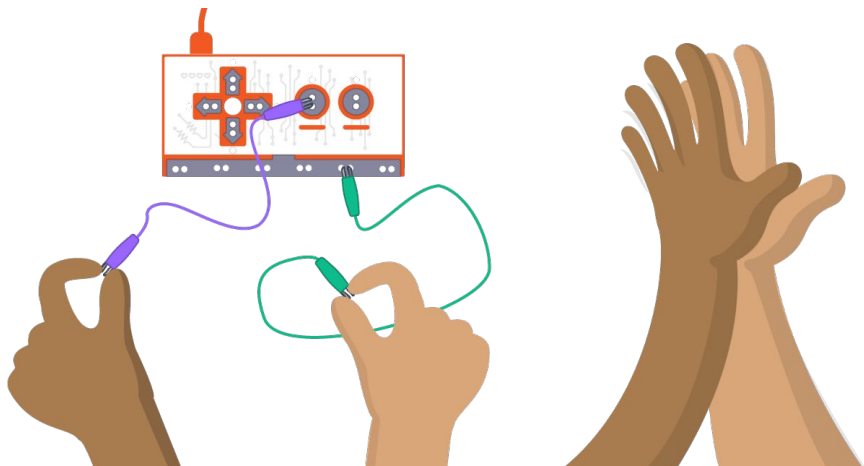
1. Plug the Makey Makey Board into your computer using the provided cable. You should see a light turn on on the board to know it is connected properly. (There is no need to install drivers, etc.)
2. Open Scratch and create a new project.



3. Connect an alligator clip to any set of holes along the “EARTH” strip on the bottom of the board.
4. Connect an alligator clip to any of the holes aligned with a keyboard key.
5. Create a script to run when that keyboard key is pressed.
6. Close the circuit to make the program register that keyboard key was pressed by holding the metal part of each alligator clip (key and EARTH).

Project Idea:

Electric High Five



Instructions:

1. Connect one alligator clip to EARTH.
2. Connect a second alligator clip to a keyboard key.
3. Have each person touch an alligator clip and give a high five to close the circuit and see the result!

Makey Makey: Electric High Five

scratch.mit.edu

GET READY

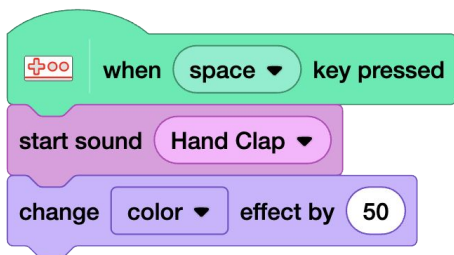


Choose any
sprite.

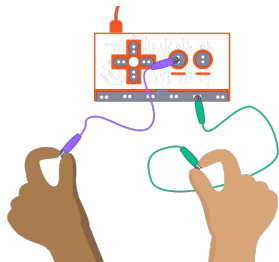


Find a
partner.

ADD CODE AND TEST



Add code to happen when the keyboard key is pressed. (You can use the Makey Makey extension hat block or the Event hat block.)



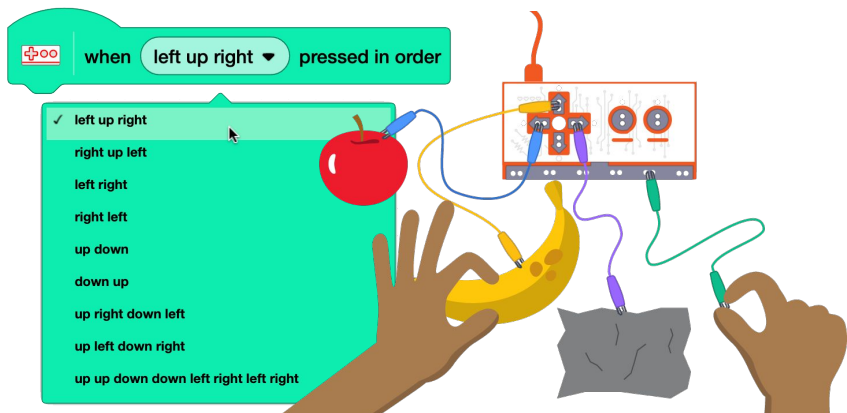
One person holds the alligator clip connected to the keyboard key. The other holds the clip connected to EARTH.



Now, give a high five to close the circuit and run your code!

Project Idea:

Secret Code



Instructions:

1. Use a unique block available under the Makey Makey Extension.
2. Select a keyboard combination to activate your secret code program.
3. Touch the alligator clips or connected conductive objects in the right order to close the circuit and see the result!

Makey Makey: Secret Code

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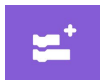
GET READY



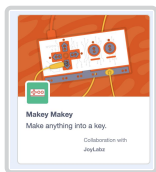
Choose any sprite.



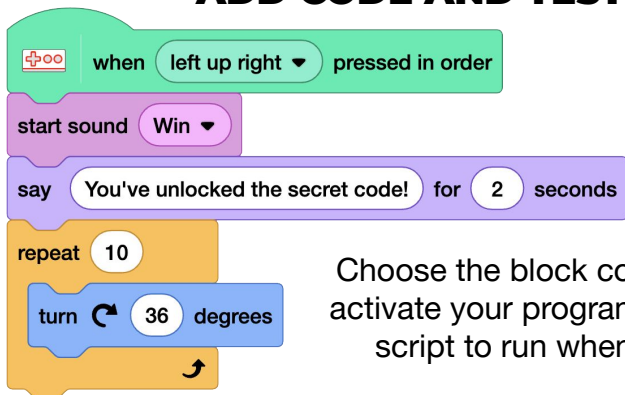
Pico



Add the Makey Makey Extension.



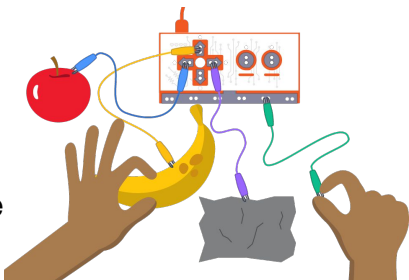
ADD CODE AND TEST



Choose the block combination to activate your program, and write a script to run when received.

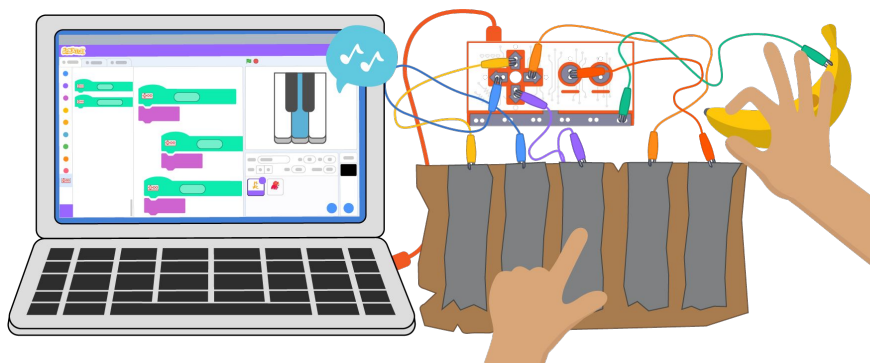
Close the circuit to register each keyboard press by touching EARTH and each keyboard input in order.

Debug your code and test the conductivity of materials by trying actual keyboard keys versus the Makey Makey.



Project Idea:

Foil Piano



Instructions:

1. Connect one alligator clip to EARTH and various alligator clips to multiple keyboard keys, which will represent various musical notes.
2. Code a project so key presses play different notes.
3. Use foil, bananas, Play-doh, or other conductive materials as external keys.

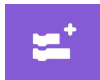
Makey Makey: Foil Piano

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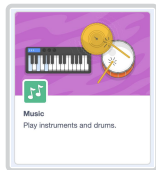
GET READY



Choose any sprite or draw your own.



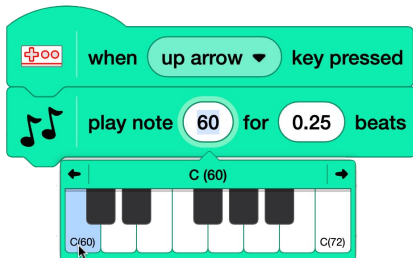
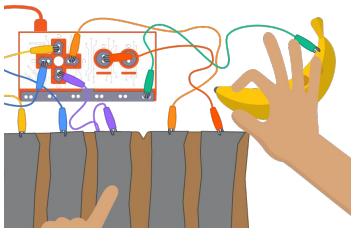
Optional: add the Music Extension.



ADD CODE AND TEST



Select note sounds in the Sound library to play when different keyboard keys are pressed. (You can use the Makey Makey extension hat block or the Event hat block.)

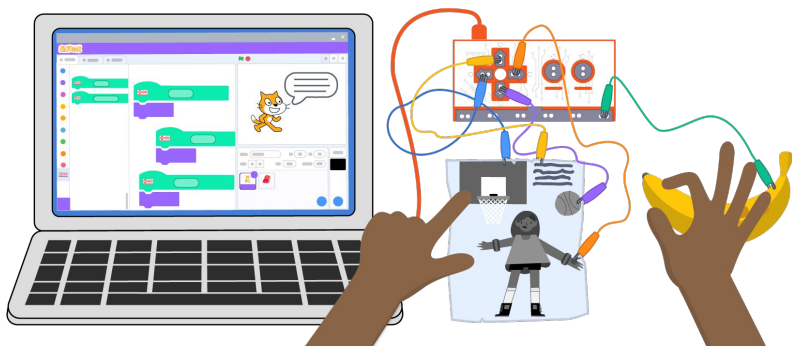


Or add the Music Extension and select notes to play when different keyboard keys are pressed. Notes can be customized for beat count and instrument.

Close the circuit to register each keyboard press by touching EARTH and a keyboard input.

Project Idea:

Art Comes Alive



Instructions:

1. Create a drawing, informational sheet, poem, or poster you want to connect to the digital space.
2. Use a graphite pencil, foil, conductive tape, or conductive paint to create connection points with pieces.
3. Use Makey Makey and Scratch to provide additional information when participants interact with your work.

Makey Makey: Art Comes Alive

scratch.mit.edu

GET READY

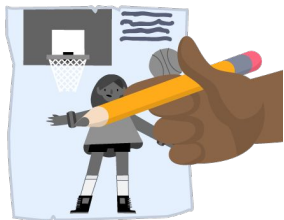


Choose any
sprite.

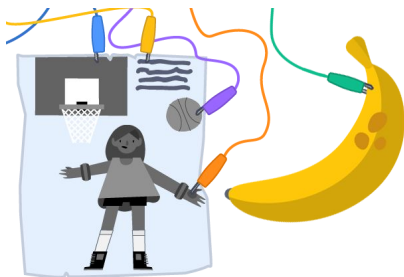


Pico

Create
your
drawing.

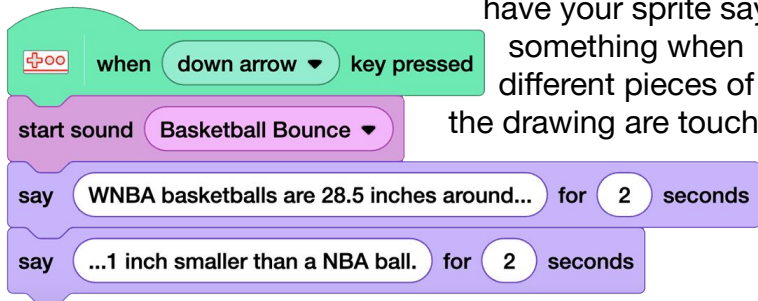


ADD CODE AND TEST



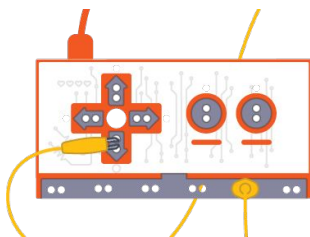
Connect different pieces of your drawing to alligator clips. Make sure the conductive pieces don't overlap, so only one key is registered as pressed at a time. Don't forget to connect EARTH!

Add code to play a sound (like a recording of your voice) or have your sprite say something when different pieces of the drawing are touched.



Project Idea:

Create Your Own/Remix



Try creating your own unique project or remix projects to use the Makey Makey to control sprites in place of mouse clicks or keyboard keys.

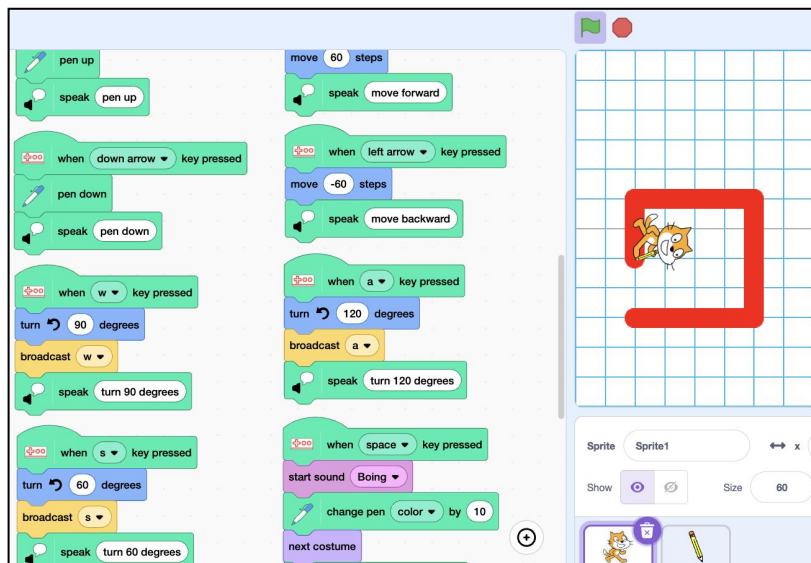
See our [Starter Projects](#) page for projects you might remix. Such as:

- [Make It Fly](#)
- [Maze Starter](#)
- [Pong Starter](#)
- [Piano](#)
- [DJ Scratch Cat](#)

How could you use the Makey Makey keys to control a sprite's direction, movement, or variable values?



Use the Makey Makey to create a turtle graphic. How might you code different angles and movements to keyboard keys and draw shapes by touching different conductive objects? See an [example Makey Drawing project here](#).



Try creating a variety of controllers that can interface with Scratch via the Makey Makey. For example, a [3D controller](#) could be designed and printed. Then, conductive tape, metal screws, or other objects could be attached to make connection points.

