

T

Tinker

2

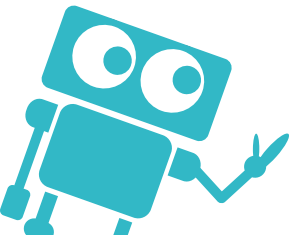
Points

Makey Makey Conductive Bongo

Create a bongo out of any conductive item using Makey Makey and an online bongo program.

<https://apps.makeymakey.com/bongos/>

Mackin**Maker**



T

Tinker

2

Points

Materials:

- Makey Makey Classic Kit
- Gator clips
- USB cable
- Computer with web access
- Assorted conductive items (metal, copper tape, foil, etc.)

Quick Start:

1. Follow the Makey Makey setup instructions (plug in USB to Makey Makey and into the computer)
2. Attach one gator clip to “Earth”
3. Attach other gator clips to arrow keys on Makey Makey
4. Attach the other end of gator clip to a conductive item
5. Hold the “Earth” gator clip with one hand and touch one of your conductive items with the other hand to trigger your bongo sounds.

Hints and Tips:

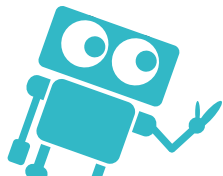
- Makey Makey has a wealth of information, games, apps, and ideas on how to use your Makey Makey.
- To make sure it’s working, touch the “Earth” with one hand, and the “arrow” or, “space” with the other hand. If a red light turns on, the Makey Makey is working.

Extended Challenges

Music: Try out other virtual instruments like the piano at <https://apps.makeymakey.com/piano/>.

Music: Can you play the bongos in time with another Makey Makey piano (or other instrument)? Try making your own band!

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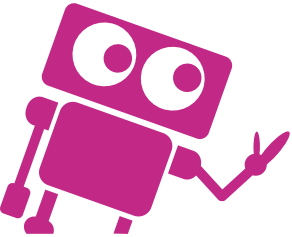




Skill-Up



Points



Makey Makey

Scratch + Makey Makey

Learn to trigger sounds, movements and more by combining Scratch and Makey Makey. Try to make a simple video game, or a way to trigger custom sounds and recordings.

[Scratch.mit.edu](https://scratch.mit.edu)

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S

skill-Up

7

Points

Materials:

- Makey Makey Classic Kit
- Gator clips
- USB cable
- Computer with web access
- Assorted conductive items (metal, copper tape, foil, etc.)

Quick Start:

1. Follow the Makey Makey setup instructions (plug in USB to Makey Makey and into the computer).
2. Attach one gator clip to “Earth”
3. Attach other gator clips to arrow keys on Makey Makey
4. Attach the other end of gator clip to a conductive item
5. Use MIT’s Scratch block coding to map keyboard keys to sounds, or make digital characters move.

Hints and Tips:

- Look in the “Events” section of Scratch to find the “when _____ is pressed” block to get started.
- You can trigger sounds or even record your voice with Scratch and trigger that!

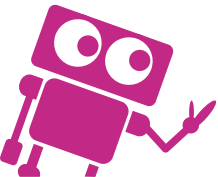
Extended Challenges

Computer Science: Use Makey Makey and Scratch to program a simple game. Discuss inputs and outputs, variables, loops, and more.

Music: Challenge yourself to theme your program around a famous composer.

Social Studies: Research a topic and engineer a way to share something you learned through Scratch and Makey Makey.

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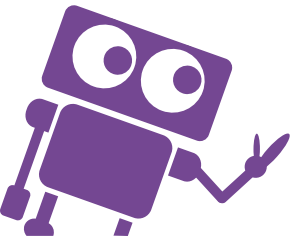


D

Design

12

Points



Makey Makey Secret Messages

Can you make a secret message for a friend by combining conductive touch points, sounds, Makey Makey, and Scratch?

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D
Skill-Up

12
Points

Materials:

- Makey Makey Classic Kit
- Gator clips
- USB cable
- Computer with web access
- Assorted conductive items (metal, copper tape, foil, etc.)

Quick Start:

1. Find an old book, newspaper, or for a more open-ended project, a blank piece of paper that you can use to create your secret message on.
2. Cover up some words or areas of your page. Will you make a message out of the words that are not covered, or will you make a secret message that you can only read by touching conductive pads of your page?
3. Plug in your Makey Makey into the computer.
4. Add conductive pads to your message and hook up to Makey Makey.
5. Create a new project in Scratch with

- your sounds mapped to keys.
6. Read your message by touching the mapped keys. Will you add sounds to your message?

Hints and Tips:

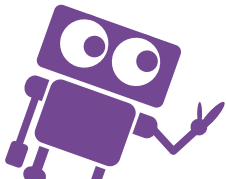
- Instead of black marker, try conductive paint to black out your message. Once it's dry, you can connect and trigger Makey Makey with each separate black paint area

Extended Challenges

Computer Science: Can you add in more than just sounds? Could your message trigger online Scratch animations? Or move a character through a programmed maze? Think creatively and deepen your coding skills too!

English/Language Arts: Can you write a message to a character in a book you're reading? What would you say?

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Global



18

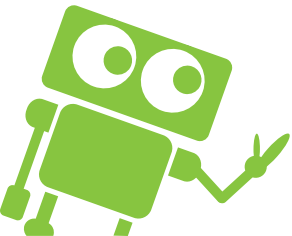
Points

Makey Makey Interactive Poster

Make a poster that is interactive! Will you add sound to a map or trigger audio from a civil rights march? It's up to you and your imagination.



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G

Global

18

Points

Materials:

- Makey Makey Classic Kit
- Gator clips
- USB cable
- Computer with web access
- Assorted conductive items (metal, copper tape, foil, etc.)

Quick Start:

1. Gather assorted craft materials, paper, and markers.
2. Plan your poster. What elements will be conductive and what will they trigger?
3. Create your poster masterpiece.
4. Add conductive pads to your poster and hook up to Makey Makey.
5. Plug in your Makey Makey into the computer and go to Scratch.
6. Create a new project in Scratch with your outputs (sounds, Sprite movement, etc.) mapped to various keyboard keys.
7. Show it off to others.

Hints and Tips:

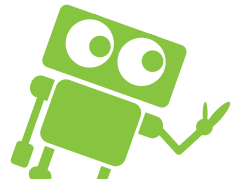
- Brass fasteners (or brads) are conductive, easy to punch through paper/poster board, and work great for Makey Makey triggering.

Extended Challenges

Social Studies: Can you make a poster about a famous inventor or a historical event?

Science: Try to create a teaching poster where each conductive pad will trigger an explanation. This could be the parts of a cell diagram, animal kingdoms chart, or parts of a habitat.

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Innovator

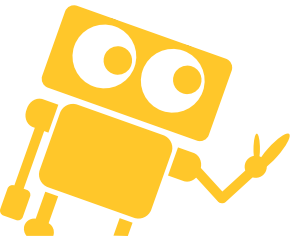
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Points

Makey Makey **Adaptive Sound Device**

Can you create a book that reads to people who have lost their sight? Or maybe another device that helps people by using the abilities of the Makey Makey.

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Materials:

- Makey Makey Classic Kit
- Gator clips
- USB cable
- Computer with web access
- Assorted conductive items (metal, copper tape, foil, etc.)

Quick Start:

1. Use design thinking to brainstorm how you will create an amazing adaptive device.
2. Gather materials and start to create.
3. Test and iterate your design.
4. Show off your final prototype to your class or friends.

Hints and Tips:

- Really get to know your user. Have empathy for what it might be like to not have your vision, maybe even blindfold yourself to better understand what might be a good device to invent for them.

Extended Challenges

Social Studies: Research the people of various countries and what issues they may be facing. Can you develop a device that would help them?

Computer Science: Think about how you can do other things with the Makey Makey to help people. Can you code a calculator app? Or a way to help measure things with Makey Makey?

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