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› Makey Makey STEM Kit Instruction Manual

Makey Makey MMCE

Makey Makey STEM Kit Instruction Manual

MODEL: MMCE

1. Introduction

The Makey Makey STEM Kit from Joylabz is an innovative invention kit designed to transform everyday objects into computer input devices. This kit encourages creativity and hands-on learning in science, technology, engineering, and mathematics (STEM) by allowing users to create interactive experiences with simple conductive materials. It's a versatile tool for all ages, from budding engineers to experienced inventors, fostering exploration and imaginative play.

2. Safety Information

WARNING: This product contains small parts and is not suitable for children under 3 years of age due to choking hazards. Adult supervision is recommended during use.

3. What's in the Box

Your Makey Makey STEM Kit includes the following components:

- Makey Makey Board
- USB Cable
- 7 Alligator Clips
- 6 Connector Wires
- Instructions with Visual Project Start Guide
- Online Documentation Access
- 20 Color Stickers



Image: All components included in the Makey Makey STEM Kit.

4. Setup Guide

Setting up your Makey Makey is designed to be quick and easy, requiring no software installation or programming knowledge. Follow these steps to get started:

1. **Connect the Makey Makey Board:** Plug the red USB cable into the Makey Makey board and then into an available USB port on your computer (Mac, Windows, or Chromebook compatible). The board will be recognized as a standard keyboard and mouse.
2. **Identify Inputs:** The Makey Makey board has various input pads labeled for common keyboard keys like arrow keys, 'Space', and 'Click'. These are where you will connect your conductive objects.
3. **Establish a Ground Connection:** This is crucial for completing the circuit. Connect one of the alligator clips to the 'Earth' bar located at the bottom of the Makey Makey board. The other end of this 'Earth' clip must be held by you or connected to a conductive part of your body (e.g., by clipping it to your skin or clothing). You act as the ground to complete the circuit.
4. **Connect Conductive Objects:** Use the remaining alligator clips to connect from the desired input pads on the Makey Makey board to your chosen conductive objects (e.g., bananas, play-dough, graphite drawings).
5. **Launch an Application:** Open any program, game, or website that responds to keyboard or mouse inputs. For example, visit makeymakey.com/piano to try a banana piano.

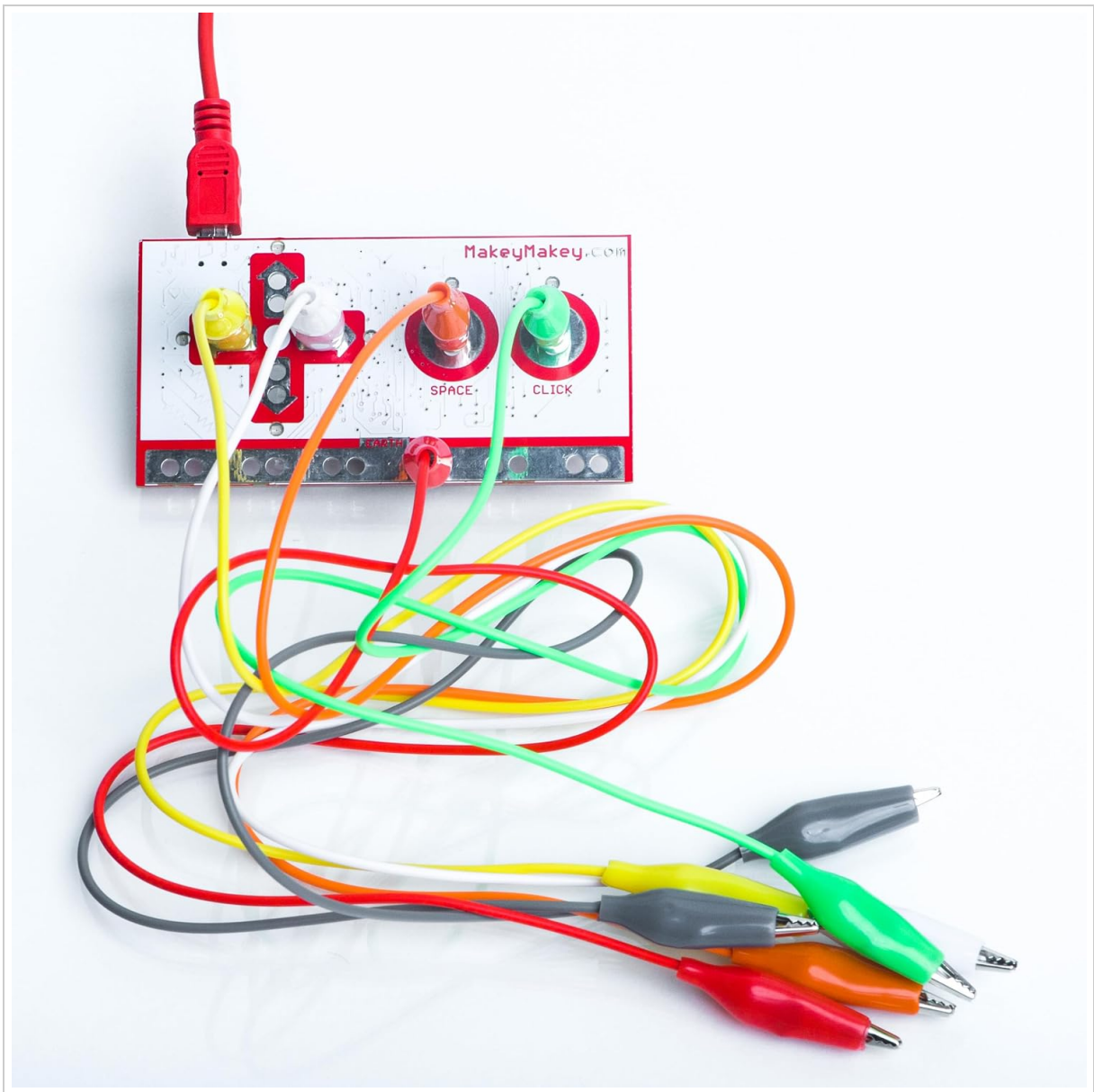
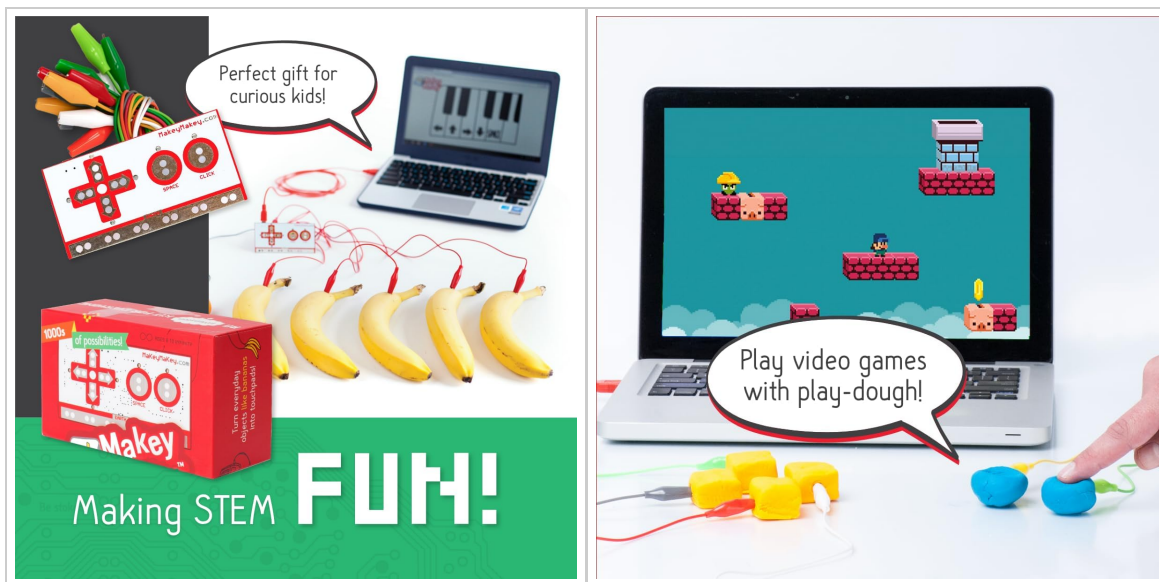


Image: Makey Makey board connected to apples, demonstrating the setup for a conductive piano.

5. Operating Instructions

The Makey Makey operates on the principle of conductivity. When you, as the 'Earth' connection, touch a conductive object that is also connected to an input on the Makey Makey board, you complete an electrical circuit. The Makey Makey then sends a signal to your computer, simulating a key press or mouse click. To operate, ensure your 'Earth' connection is maintained. Then, simply touch the conductive object connected to your desired input. For instance, if you've connected a banana to the 'Space' input, touching the banana while holding the 'Earth' connection will trigger the 'Space' key on your computer.



Images: Examples of conductive objects used as inputs for the Makey Makey.

6. Project Ideas

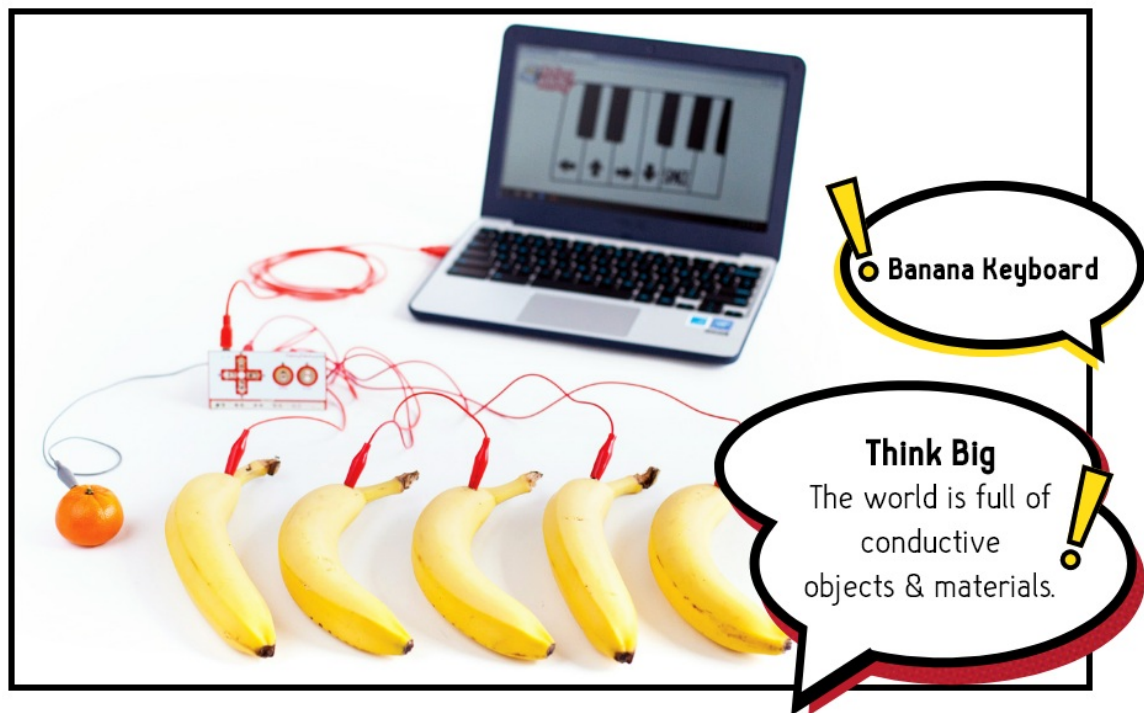
The possibilities with Makey Makey are limited only by your imagination. Here are a few ideas to spark your creativity:

- **Banana Piano:** Connect bananas to different piano keys on an online piano app.
- **Play-Dough Gamepad:** Sculpt play-dough into buttons for your favorite video games.
- **Cardboard Guitar:** Create a guitar from cardboard and aluminum foil, then connect it to a music program.
- **Interactive Drawings:** Use graphite pencils to draw conductive lines and shapes that act as buttons.



ENDLESS POSSIBILITIES





Images: Diverse project examples showcasing the versatility of the Makey Makey kit.

Video: Official product demonstration of the Makey Makey STEM Pack, highlighting various creative applications.

7. Maintenance

To ensure the longevity and optimal performance of your Makey Makey STEM Kit, please follow these maintenance guidelines:

- **Keep Dry:** Protect the Makey Makey board and components from moisture and liquids.
- **Clean Gently:** Use a soft, dry cloth to clean the board. Avoid abrasive cleaners or solvents.
- **Store Properly:** Store all components in their original packaging or a suitable container to prevent tangling, bending, or damage to the wires and clips.
- **Handle with Care:** The circuit board contains delicate electronic components. Avoid dropping, bending, or applying excessive force to the board.

8. Troubleshooting

If you encounter issues with your Makey Makey, try the following troubleshooting steps:

- **No Response:** Ensure the USB cable is securely connected to both the Makey Makey board and your computer. Check that the red LED on the board is lit, indicating power.
- **Inconsistent Input:** Verify that your 'Earth' connection is firm and consistently touching your skin or a conductive material you are holding. Ensure alligator clips are securely attached to both the Makey Makey input pads and the conductive objects.
- **Object Not Conductive:** Not all objects are equally conductive. Experiment with different materials. Objects with higher water content (like fruits and vegetables) or metals tend to work best.
- **Software Issues:** Close and reopen the application or game you are using. Ensure your computer's operating system is up to date.
- **Check for Shorts:** Make sure that no two alligator clips or conductive objects are accidentally touching each other, which could create unintended circuits.

For further assistance, refer to the official online documentation at makeymakey.com/howto.

9. Specifications

Product Dimensions	4.75 x 3 x 2 inches
Item Weight	7.4 ounces
Item Model Number	MMCE
Manufacturer Recommended Age	8 years and up
Manufacturer	Makey Makey
Date First Available	August 3, 2012

10. Warranty Information

This Limited Warranty covers defects or malfunctions in your new Makey Makey kit (including the circuit board, USB cable, alligator clips, and connector wires) if purchased through JoyLabz LLC or an authorized retailer.

- **Duration:** This warranty lasts for 90 days from the original purchase date. Implied warranties of merchantability and fitness for a particular purpose are valid for one year from the purchase date. Note that some states may not allow limitations on implied warranties.
- **Claim Process:** If your Makey Makey fails to function as described in the documentation, send it, postage paid, with a copy of your receipt and a brief written description of the problem to:

*JoyLabz LLC
1060 River St, Unit 106
Santa Cruz, CA 95060*

If coverage under this Limited Warranty is determined, a replacement for all non-functioning Makey Makey components will be sent at no additional charge.

11. Support

For additional resources, project ideas, lesson plans, and detailed online documentation, please visit the official Makey Makey website:

makeymakey.com

The Makey Makey community is a great place to find inspiration and share your own inventions. Explore thousands of projects and activities to continue your learning journey.