

5 WAYS TO INVENT WITH YOUR KIDS

A Fun Guide to Using Makey Makey at Home

makeymakey.com

INTRODUCTION

Welcome to a world of creativity and invention in your own home! The Makey Makey is an innovative tool that turns everyday objects into touchpads and switches to create controllers for your computer games and apps. It's a fantastic way to bring STEM (Science, Technology, Engineering, and Mathematics) subjects into your home, making education fun and interactive for the whole family.

In this guide, we'll explore five quick, easy, and creative projects that will be engaging and fun for the whole family. These activities are designed to spark imagination, curiosity, and most importantly, provide quality family time. So, grab your Makey Makey kit, gather some household items, and let's start inventing!

Let's Get Started!



1

Project #1: Musical Salad

Turn fruits and vegetables into musical instruments!

Materials Needed

- Makey Makey kit
- 5-6 bananas (or any other conductive fruit or veggie)
- Alligator clip cables (included in the kit)
- Computer with internet access (USB-A port required)
- Speakers (built-in or external)

Educational Benefits

- **Science:** Understanding conductivity and circuits.
- **Music:** Exploring notes and rhythms.
- **Creativity:** Designing your own musical instrument.

Steps

1. Set Up the Makey Makey Board

- Connect the Makey Makey board to your computer using the USB cable provided.
- Ensure the board lights up, indicating it's powered.

2. Connect the Earth/Ground

- Attach one end of an alligator clip to the "EARTH" bar at the bottom of the Makey Makey board.
- The other end will be held by the person playing the piano (you or your child).

3. Connect the Bananas

- Insert one end of an alligator clip into the top of a piece of produce (banana).
- Attach the other end to one of the arrow keys or space bar inputs on the Makey Makey board.
- Repeat for each banana, using different inputs (UP, DOWN, LEFT RIGHT, SPACE, CLICK).

4. Load a Piano Program

- Open the Makey Makey Piano app from [our website](#).

5. Play the Banana Piano

- Hold the alligator clip connected to "EARTH."
- Touch the fruit (bananas) to play different notes.
- Experiment with different melodies and have fun together!

[View Activity](#)



2

Project 2: Squishy Game Controller

Create a custom game controller using modeling clay!

Materials Needed

- Makey Makey
- USB Cable
- Play-Doh or homemade salt dough
- Alligator clips
- Computer with internet access

Educational Benefits

- **Engineering:** Designing input devices.
- **Technology:** Understanding how controllers interact with software.
- **Art:** Sculpting and creativity with dough.

Steps

1. Prepare the Play-Doh Buttons

- Mold the Play-Doh into flat shapes for your controller buttons.
- Create one button for each input (UP, DOWN, LEFT, RIGHT, SPACE, CLICK).

2. Set Up the Makey Makey Board

- Connect the Makey Makey board to your computer via USB.

3. Connect the Earth/Ground

- Attach an alligator clip to the "EARTH" bar.
- The player will hold this clip or attach it to a conductive object they're touching.

4. Connect the Play-Doh Buttons

- Insert an alligator clip into each Play-Doh button.
- Connect the other end to the corresponding inputs on the Makey Makey board.

5. Choose a Game

- Open a simple online game that uses arrow keys, like Tetris, a maze game or our [Dungeon Rescue](#).

6. Play the Game

- Hold the EARTH clip.
- Touch the Play-Doh buttons to control the game.

[View Activity](#)



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Project 3: Interactive Storybook

Bring a story to life with triggered images and sound effects!

Materials Needed

- Makey Makey
- USB Cable
- Storybook or printed story pages
- Aluminum foil
- Tape
- Alligator clips
- Computer with internet access
- Scratch programming platform (scratch.mit.edu)

Educational Benefits

- **Literacy:** Enhancing reading with interactive elements.
- **Creativity:** Combining storytelling with technology.

Steps

1. Prepare the Storybook

- Identify parts of the story where sound effects and a fun image would enhance the experience.
- Cut small pieces of aluminum foil and tape them onto the pages at these points.

2. Set Up the Makey Makey

- Connect it to your computer via USB.

3. Connect the Foil Pads

- Attach alligator clips to the foil pieces.
- Connect the other ends to the Makey Makey inputs (SPACE, CLICK, arrow keys).

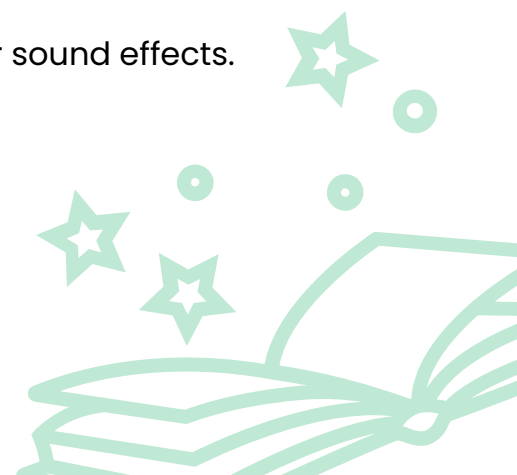
4. Create Sound Effects in Scratch

- Go to [the Makey Makey Interactive Poster App](#).
- Use the App to record sounds and images to be triggered by each key press. .
- Test the app with your computer keyboard!

5. Read and Interact

- Hold the EARTH clip.
- As you read the story, touch the foil pads to trigger sound effects.

[View Activity](#)



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Project 4: DIY Dance Mat

Build a dance mat to play dance or fitness games!

Materials Needed

- Makey Makey
- USB Cable
- Cardboard or foam board
- Aluminum foil
- Scissors
- Tape
- Alligator clips
- Computer with internet access

Educational Benefits

- **Physical Education:** Promoting movement and coordination.
- **Engineering:** Building interactive devices.
- **Technology:** Understanding input/output systems.

Steps

1. Create the Dance Mat Base

- Cut the cardboard into four large squares and arrange them like a plus sign (+).

2. Make the Foil Pads

- Cover each square with aluminum foil and tape it securely.
- These will be your dance pads.

3. Set Up the Makey Makey Board

- Connect it to your computer via USB Cable.

4. Connect the Earth/Ground

- Place a piece of foil on the floor at the center of the “plus sign” of foot pads to stand on, connected to the EARTH input.

5. Connect the Dance Pads

- Attach alligator clips from each foil pad to the appropriate arrow key inputs on the Makey Makey board.

6. Choose a Game or App

- Use an online dance game or the [Match the Beat](#) by Makey Makey.

7. Dance Away

- Stand on the EARTH foil.
- Step on the pads to control the game as prompted.

[View Activity](#)



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Project 5: Musical Water

Explore conductivity with water-based instruments!

Materials Needed

- Makey Makey kit
- Small cups or bowls
- Water
- Salt (to enhance conductivity)
- Different colors of food colors
- Alligator clips
- Computer with internet access

Educational Benefits

- **Science:** Learning about conductivity and electrolytes.
- **Experimentation:** Testing how different substances affect conductivity.
- **Sensory Play:** Engaging with different textures and temperatures.

Steps

1. Prepare the Water Cups

- Fill several cups with water.
- Add a pinch of salt to each and stir (salt increases conductivity).
- Add your choice of food coloring to each container of water!

2. Set Up the Makey Makey Board

- Connect it to your computer.

3. Connect the Earth/Ground

- Hold the EARTH alligator clip or attach it to a bracelet or ring you're wearing.

4. Connect the Water Cups

- Place an alligator clip in each cup.
- Connect the other ends to the Makey Makey inputs.

5. Load the Makey Makey Sampler App

- Use the [Makey Makey](#) Sampler App or any online instrument app.

6. Play with Water

- Dip your fingers into the water cups to trigger different sounds.
- Experiment with touching multiple cups for different sound effects.
- Instead of your finger attach the clip to a metal spoon or other kitchen utensil!

Watch Video



CONCLUSION

Inventing and experimenting with your kids using Makey Makey opens up endless possibilities for time together spent exploring the world of STEM. These projects are not only entertaining but also educational. Encourage your children to ask questions, make predictions, and come up with their own ideas. Who knows? You might inspire the next great inventor!

Don't have a Makey Makey yet? We've got you covered. You can view all of our products in our [shop](#).

Happy Making!



Be stoked!