Makey Makey Classroom Pack

Mid-Valley
STEM-CTE HUB

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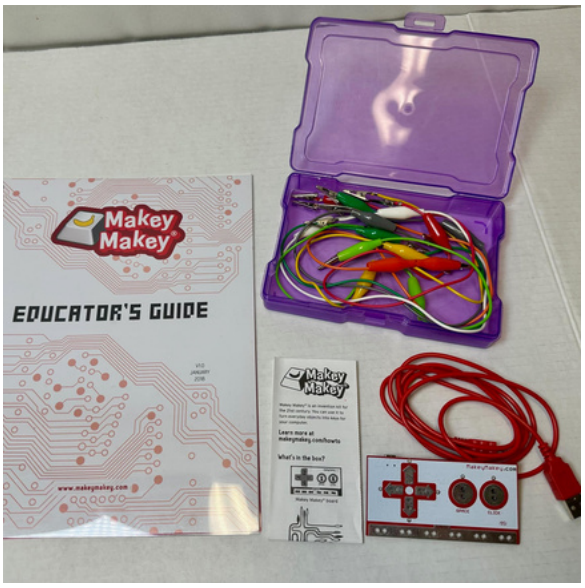
Makey Makey

The Makey Makey classroom kit provides hands-on STEAM learning through creative invention and circuitry. Students use everyday objects to build interactive circuits, developing essential skills in electronics, engineering, and problem-solving. his kit supports projects that foster creativity, critical thinking, and collaboration.



Grade Level

3rd - 12th grades

Group Size

1 students per controller

Time Duration

30 minutes - 2 hours

Content of Kits

Components

- Educator Guide
- 16x Makey Makey controller kits
  - Makey Makey controller
  - USB cable
  - 7x Alligator clips
  - Connector wires

Recommended:

(not included)

- Chromebooks
- Play-doh
- cardboard
- foil
- markers

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Usage

Getting Started

1. **Familiarize with Components:** Review all parts included in the kit.

2. **Connect the Makey Makey:** Plug the Makey Makey board into your computer using the USB cable.

3. **Attach Objects:** Use alligator clips to connect conductive materials (like bananas, Play-Doh, or metal objects) to the Makey Makey board.

4. **Configure the Software:** Open any program that uses keyboard or mouse input, such as a digital piano app or a video game.

5. **Experiment:** Start touching the connected objects to control the software. For example, tap a banana to play a piano note.

Storage

Keep the Makey Makey boards and accessories in a dry, safe place when not in use to avoid damage.

Troubleshooting

- Ensure all connections are secure and that conductive materials are sufficiently conductive.

- Check that the USB connection to the computer is stable.

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Activity Guide

Beginner

Banana Piano
Students will connect bananas to the Makey Makey and use them as touch-sensitive piano keys. By linking the Makey Makey to a simple online piano app, they will explore how electrical conductivity works in organic materials. This activity introduces basic circuitry and input-output relationships in a fun, hands-on way, reinforcing concepts like closed circuits and signal transmission.

Intermediate

Play-Doh Game Controller
Students will create custom game controllers using Play-Doh and connect them to the Makey Makey to control an online game. They will shape buttons and connect them to the Makey Makey, configuring them to control an online game. This activity challenges students to think about user interface design, ergonomics, and how electrical circuits can be adapted for different inputs.

Advanced

Interactive Art Project
Students will design and build an interactive art installation where various objects trigger sounds, lights, or videos when touched. Using Makey Makey, they will program responses based on different conductive materials, creating an engaging, sensor-driven experience. This project encourages creativity while applying principles of circuit design, programming, and multimedia interaction.

Extension Activities:

Makey Makey Invention Day
Students will apply their knowledge to create unique inventions using Makey Makey. They will brainstorm, prototype, and refine their projects before showcasing them in a classroom or school-wide event. This activity fosters collaboration, problem-solving, and public speaking skills as students explain their creations to an audience.

Interactive Storytelling Experience
Students will design an interactive storytelling project where physical objects trigger different parts of a story through sound, music, or narration. Using Makey Makey, they will connect conductive touchpoints—such as aluminum foil, graphite drawings, or fabric sensors—to a computer that plays corresponding audio clips when touched. This activity integrates technology with creative writing, reinforcing concepts of circuits, programming, and multimedia design while encouraging storytelling and audience engagement.

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Learning Extensions

STEAM Connections: Electrical Engineering - Circuit Building

Learning Objectives:

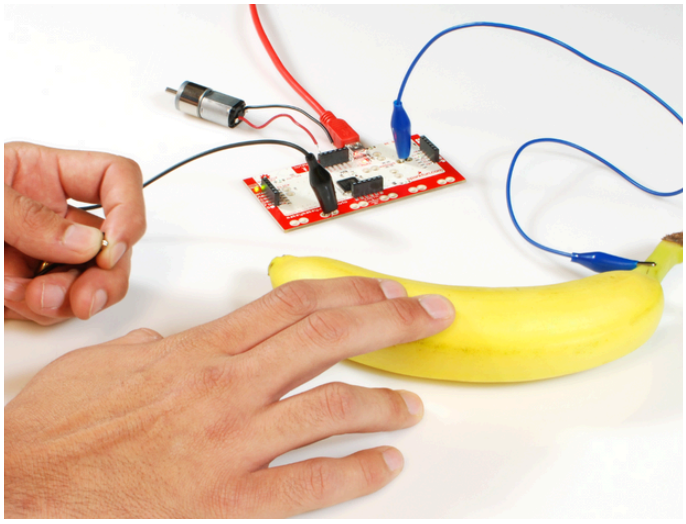
- Knowledge of circuit-building basics.
- Explore conductivity and human-computer interaction.

Career Connections:

- **Product Design –** Develops hands-on skills in prototyping and user interaction, essential for designing innovative tech products.
- **Software Development –** Encourages coding and computational thinking, foundational for careers in game design, app development, and interactive media.
- **Electronics –** Builds an understanding of circuits and conductivity, applicable to careers in electrical engineering and hardware development.
- **Interactive Art –** Merges creativity with technology, introducing students to careers in digital media, experiential design, and interactive installations.

Essential Employability Skills:

- Critical thinking
- Creative problem-solving
- Computational thinking
- Digital literacy
- Communication
- Innovation



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Resources and Accessibility

Safety Guidelines

- Monitor the use of small components and electrical connections to ensure safe handling, especially with younger children.

Accessibility

Modify activities to accommodate students with different physical abilities by choosing suitable conductive materials and customizing the interface.

Library Catalog

Library Resources

Feedback

QR to feedback survey