

**Title:**

Color Game, for MaKey MaKey

**Short Summary:**

This is a simple, silly, and fast-paced game that even large groups of people can use together.

**Instructions:**

1. Get a MaKey MaKey.
2. Figure out how many people will be participating. There is a physical limit, but 20-30 can work.
3. Lead your group in making sure everyone has a one-sensor controller of some kind ready to wire to the MaKey. This can be a water-based trigger where the user is grounded by bracelet, an actual tactile button, or any number of homebrew inventions. Select the best planned projects for your group, or encourage everyone to make their own. The important thing is that their trigger is normally open but can be temporarily closed somehow such as touching water or pressing a button.
4. Allow enough time to make sure everyone can test their sensors to make sure they do work.
5. Separate everyone into exactly four teams.
6. Help each team wire their projects together. This is going to require generous portions of wire to make sure everyone can sit comfortably while holding their own projects. The goal here for each team is to have each team member's ground wired together, and for each team member's keyboard signal (A, S, F, or G depending on their team) wired together.
7. This likely ends up looking like a big spiderweb of wire, but don't worry. It's plenty worth it. Wire directly to the MaKey MaKey from each group. Where all of one team's ground wires combine, jump from there straight to the MaKey MaKey. Do this with each group of a team's grounds and keyboard signals.
8. Do a final test and make sure everyone's trigger invention works for the letter of their group.
9. Play the Color Game, for MaKey MaKey here: <http://scratch.mit.edu/projects/11015433/>

**Game Instructions:**

A: blue team  
S: green team  
F: red team  
G: yellow team  
Space: start

The goal of this game is for each team to repeatedly press their buttons only while their color or a word associated with their color is displayed on the screen. Teams get 4 points each time a team member correctly presses their button and -5 points whenever the button is pressed when nothing is displayed, when another color is displayed, or when nonsense is displayed.

This can quickly add up to very high scores and very large deficits.

This game can be used with a keyboard instead.

**KEY**

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**RED** (+4 to red team, -5 to all other teams)

Square red box

The word "red"

The word "strawberry"

**BLUE** (+4 to blue team, -5 to all other teams)

Square blue box

The word "blue"

The word "sky"

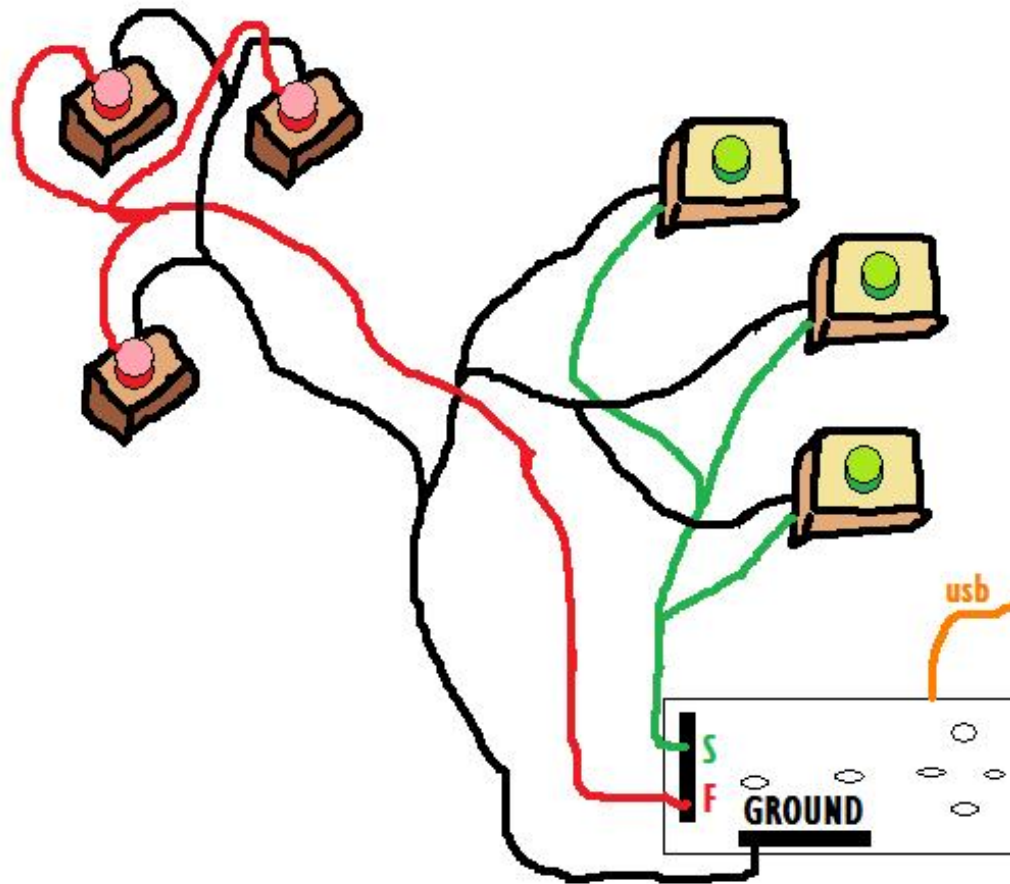
GREEN (+4 to green team, -5 to all other teams)  
Square green box  
The word "green"  
The word "grass"

YELLOW (+4 to yellow team, -5 to all other teams)  
Square yellow box  
The word "yellow"  
The word "lemon"

**NONSENSE (-5 to any team)**  
Square orange to purple gradient box  
Square black to white gradient box  
The word "purple"  
The word "orange"  
The word "brown"  
The word "triangle"  
The word "invisible"

**Visual guide:**

In this pic, you can see that the green team and red team are both successfully wired and grounded to the MaKey MaKey.



**Materials:**

- Lots of wire
- Cardboard
- Construction paper
- Foil
- Tape/glue
- Decorating materials (crayons, markers, colored pencils, etc.)
- Scissors
- Rulers
- Extras (such as tactile buttons)

**Cost:**

Between free and \$0.25-\$2+ per controller. Try looking for free or cheap materials such as scrap but safe wire.

**Time:**

30 minutes or less per person to build controller. 15-30 minutes to wire all teams together and all teams to the MaKey MaKey. Playtime can be however long you want!

**Software:**

I created a simple and silly game on Scratch here: <http://scratch.mit.edu/projects/11015433>

This can be a nice game to throw in at the end of a MaKey MaKey workshop that everyone can participate in. The code was designed with the four colors red, green, yellow and blue in mind, but the code can be remixed to include more examples of colors and nonsense answers, it can be remixed to include your own review material or theme, and the number of groups is not necessarily limited to four although some coding will be required for more groups.

The focus on this game should not be which team wins, especially since the timing and sequence is random each time. This is more of a silly game, and works best with a larger crowd of people. Part of the fun is that each color lasts on the screen only momentarily and people can press their button or actuate their trigger multiple times before their team's color goes away. Doing this too quickly can actually work against the team if a player accidentally keeps pressing after the color has left or when a different team's color is on the screen.

**Ideas:**

-Try using this for a unique review of lessons. For instance, instead of assigning each team colors, each team can be assigned regions of the United States. Then, instead of using the color answers and nonsense answers that come with the game, players can earn points for their team by correctly identifying states and capitals within their team's US region. Here's a remix of my game that I made as an example: <http://scratch.mit.edu/projects/11016184>/ A similar variation can be done for virtually any subject by simply editing the costumes and scripts for each of the four sprites!

-Try providing lots of cheap and easy to acquire parts for players to use when building their invention. Paperclips, graphite pencils, or anything conductive will work. Best results may happen with a large assortment to choose from.