



Project Tutorial

Makey Makey Pop-up Piano

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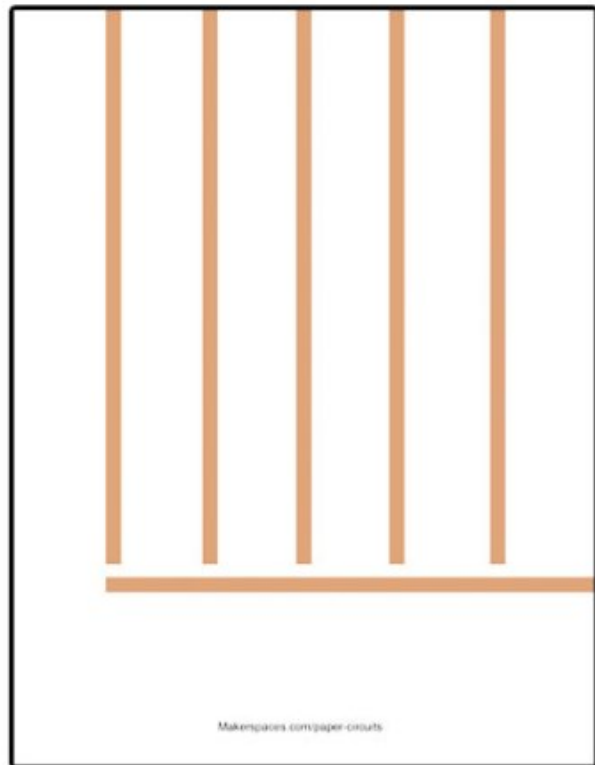
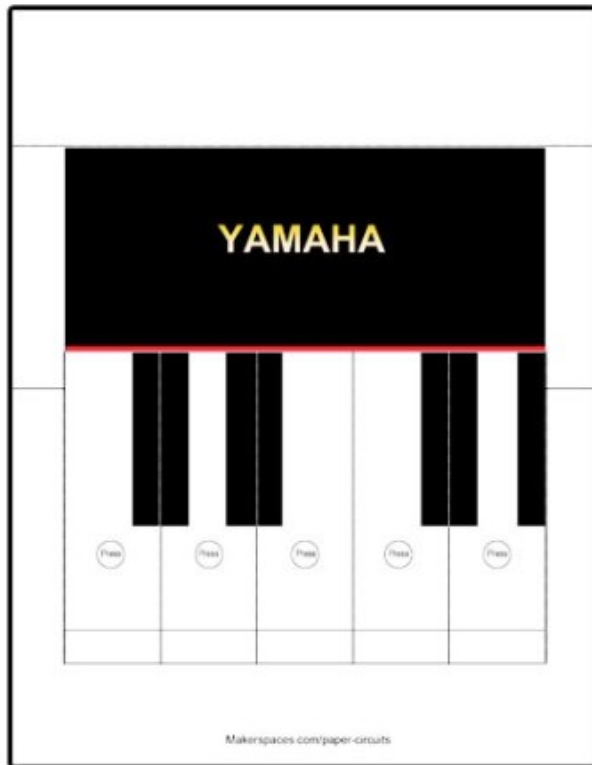


In this makerspace project, we're going to show you how to make a popup paper piano that connects to your computer using Makey Makey. Learning how to play the piano however, is up to you!

Step 1 – Makey Makey Project Templates

To begin, you will need to download & print the Makey Makey popup piano templates that can be found at the link below:

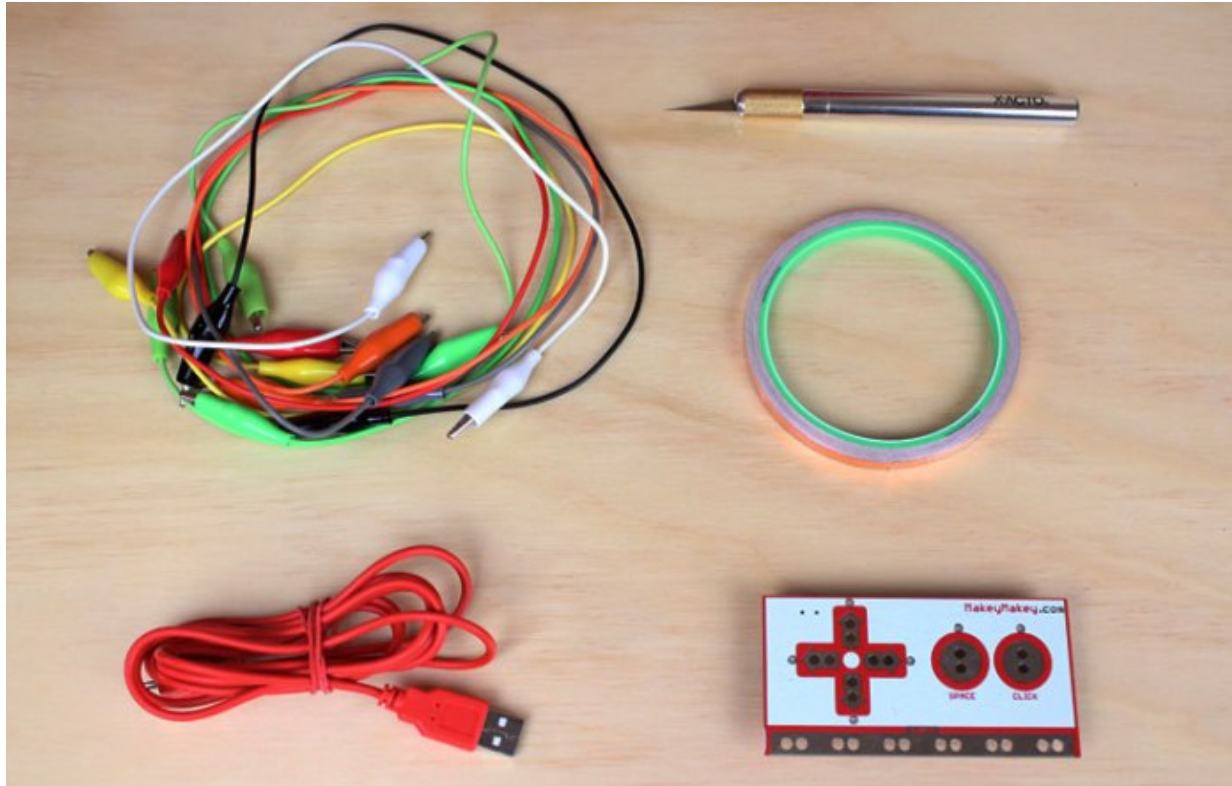
<https://www.makerspaces.com/wp-content/uploads/2017/01/Popup-Paper-Piano.pdf>



Step 2 – Project Materials

Once you have the templates printed, you will need to get the following materials:

- [Makey Makey](#) board w/ USB
- Alligator clips (comes with Makey Makey)
- Conductive [copper tape](#)
- Xacto knife or similiar



Step 3 – Apply Copper Tape To Template

Ok it's time to create an electrical circuit in order for this piano to work. Take your conductive copper tape and apply it to the trace lines on the template as shown.

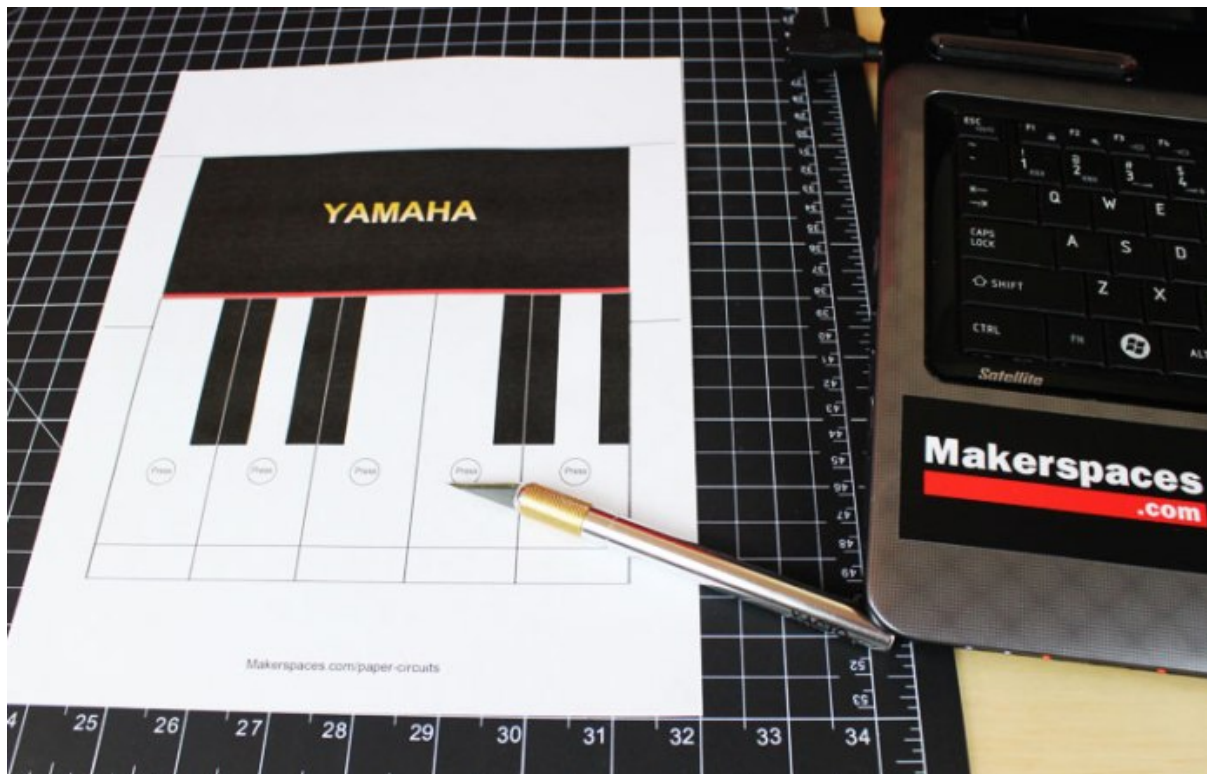


Make sure the copper is smoothed out flat along the trace lines.



Step 4 – Cut & Fold The Piano Popup

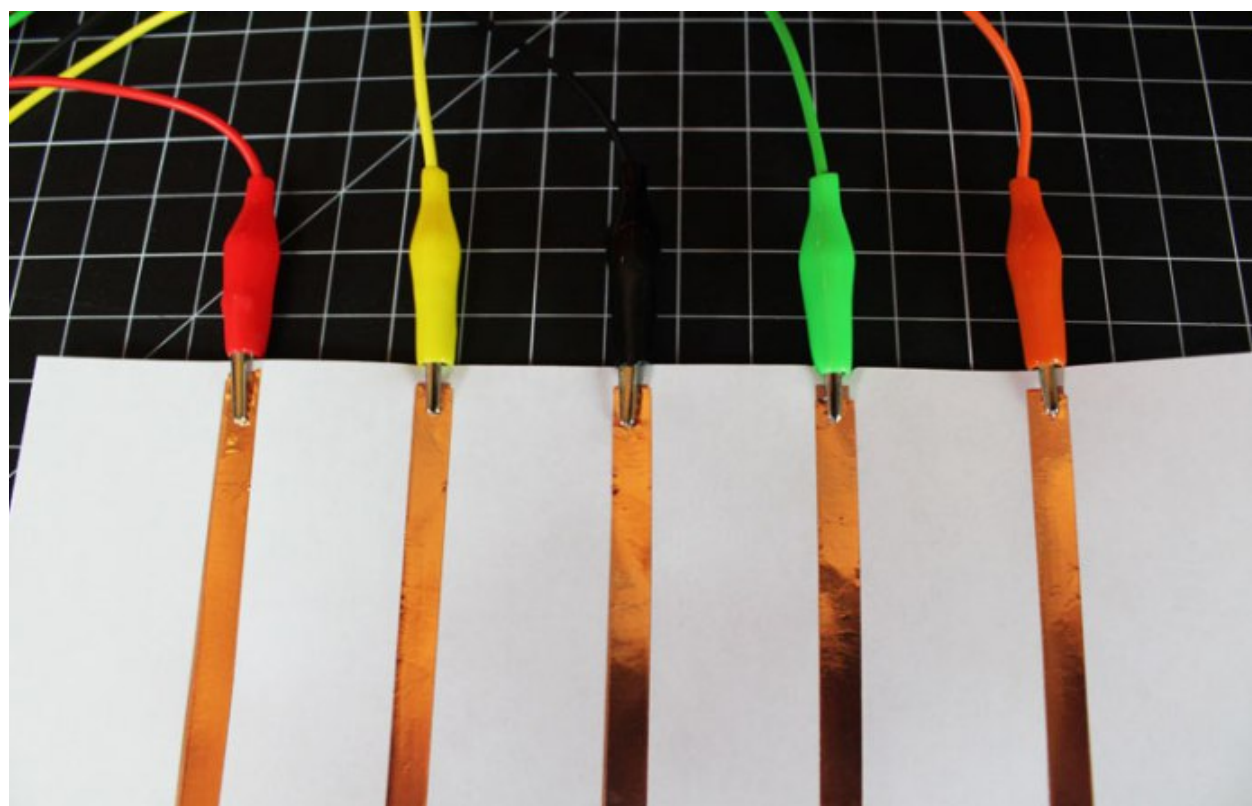
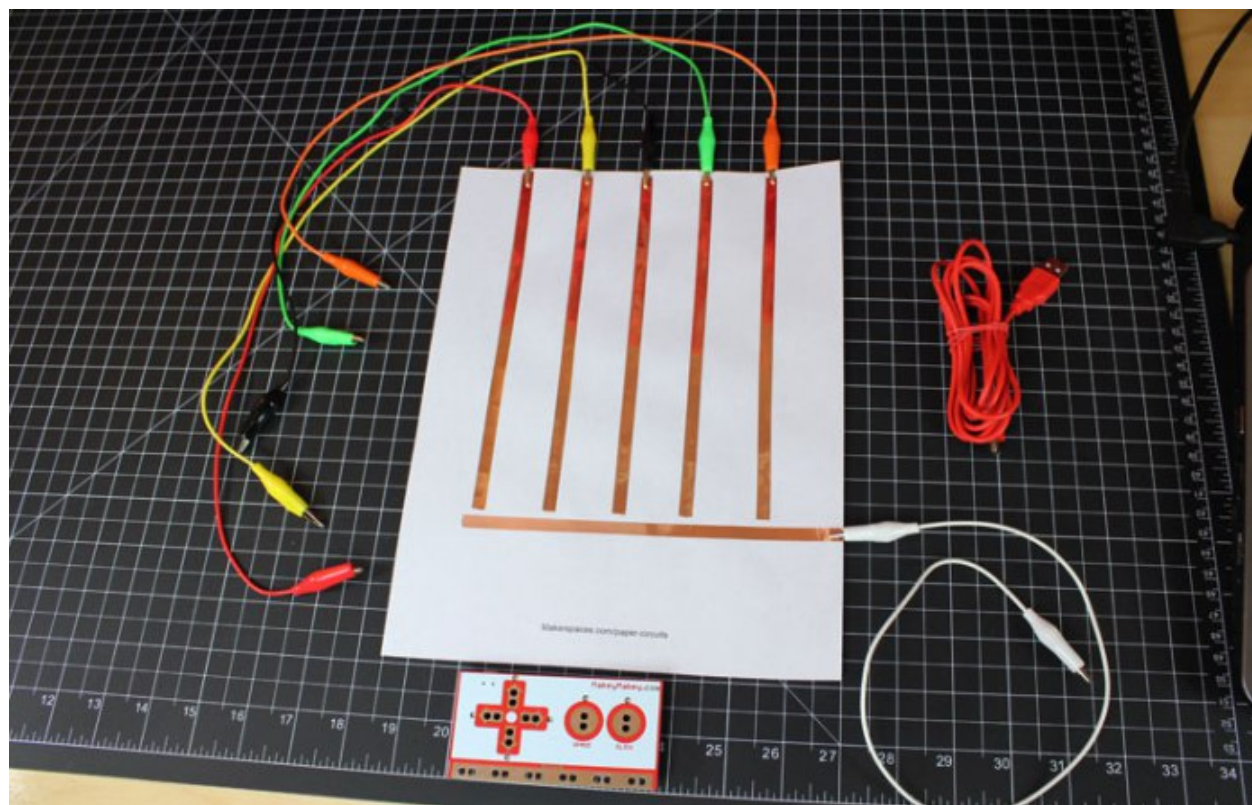
Now it's time to create the popup portion of this piano. In order to create working keys you will need to use your Xacto knife to cut along the **dotted lines** on the template. The **solid lines** will need to be folded as shown. We like using a [scoring tool](#) for making precise folds but it's not required.





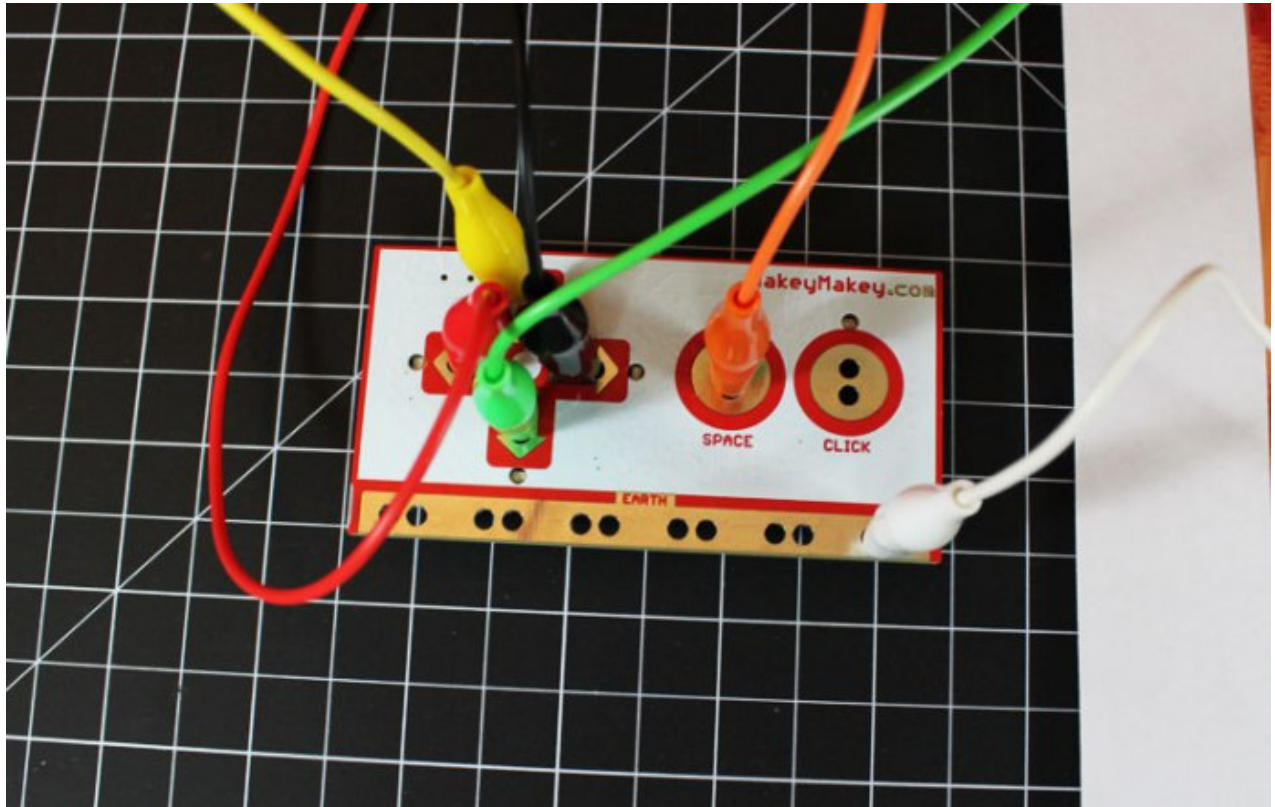
Step 6 – Wire Up The Template

Connect each alligator clip to the end of each copper trace line. It doesn't matter which color you use for each connection.

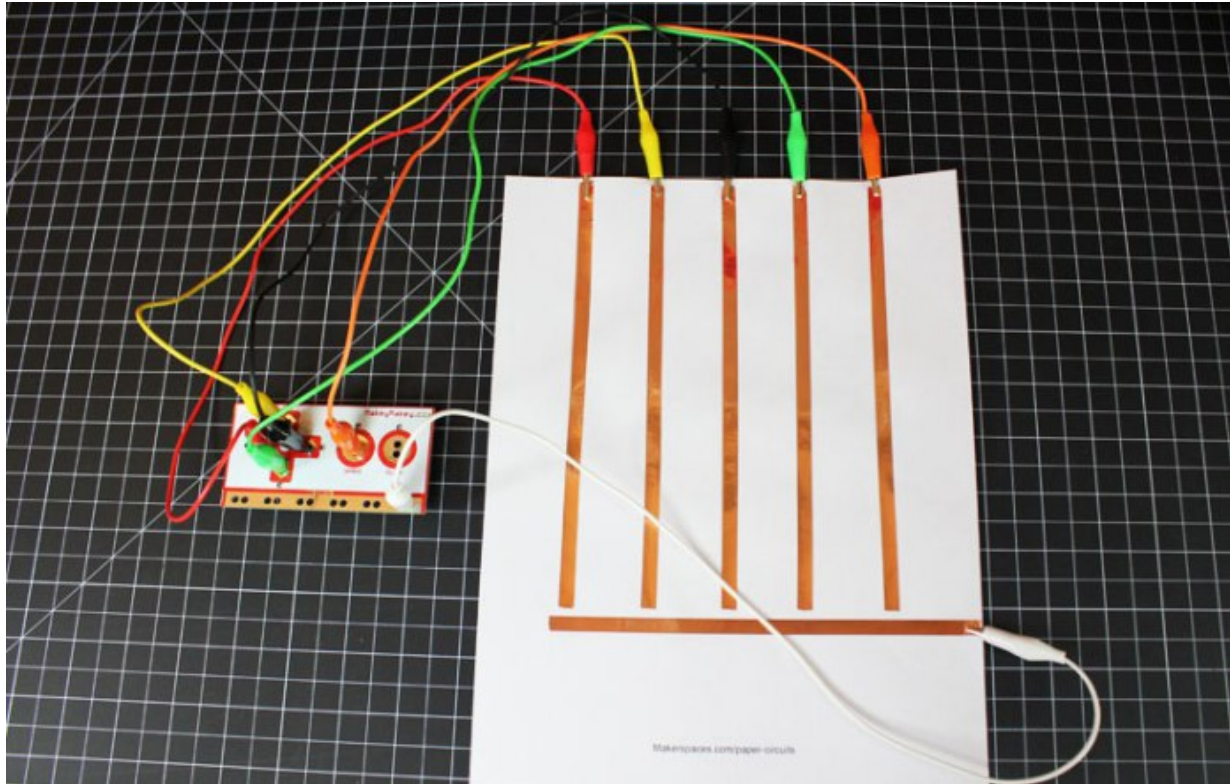


Now it's time to connect the alligator clips to the Makey Makey board.

NOTE: You need to make sure you connect your alligator clips clockwise on the Makey Makey. In this example, we have the far left color on the copper as Red, Yellow, Black, etc. Make sure you connect your far left color to the LEFT arrow on the Makey Makey and work clockwise.

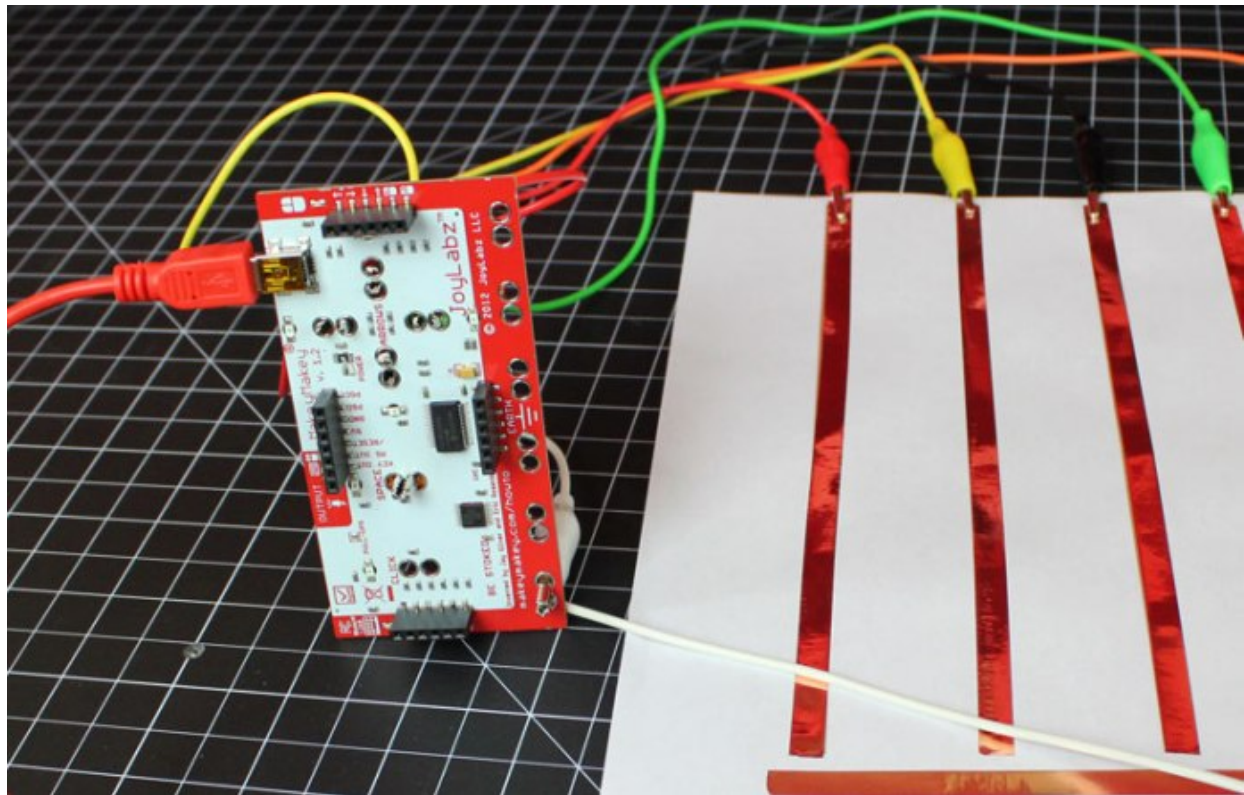


Don't forget to connect the horizontal copper trace to GROUND on the Makey Makey. This is shown below using the WHITE alligator clip. You can connect to any of the GROUND holes as they are all the same on the Makey Makey.



Step 7 – Connect The Makey Makey

Take the USB cable that is supplied with the Makey Makey and connect one end to the Makey port and other to your computer's USB port.

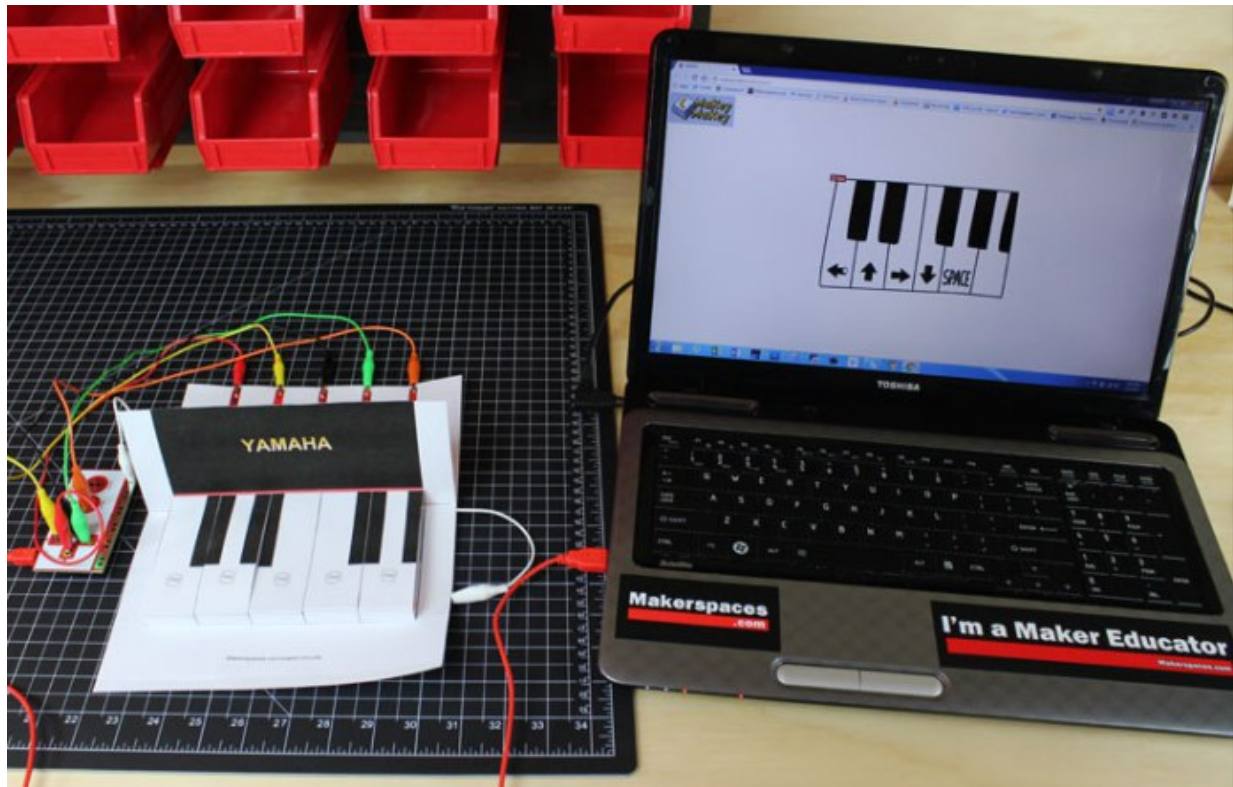


Step 8 – Let's Make Some Music!

Go ahead and place the popup piano section directly over the copper trace template. Make sure the copper contacts on the keys line up with the gaps in the copper trace below.



Now that everything is connected and in place, we are ready to interface with the Makey Makey website. Go to www.makeymakey.com/piano and this should take you directly to the piano application.



The only thing left to do at this point is to press down on the paper keys, make some music and impress your friends.