Speed Tinkering

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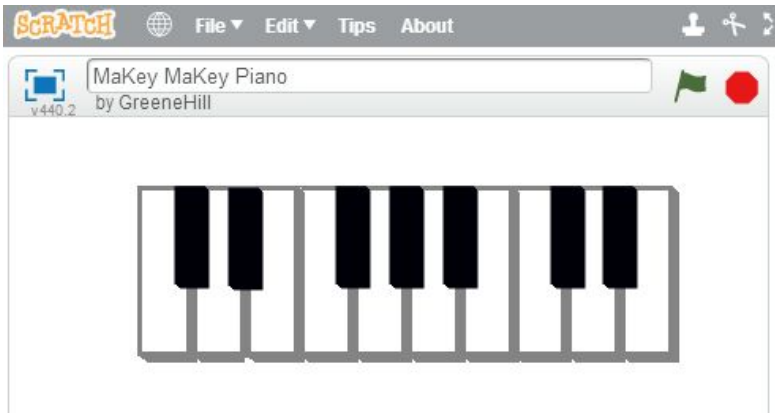
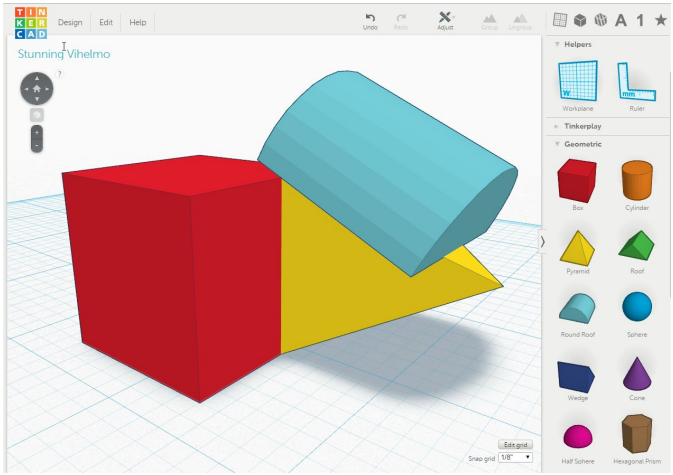
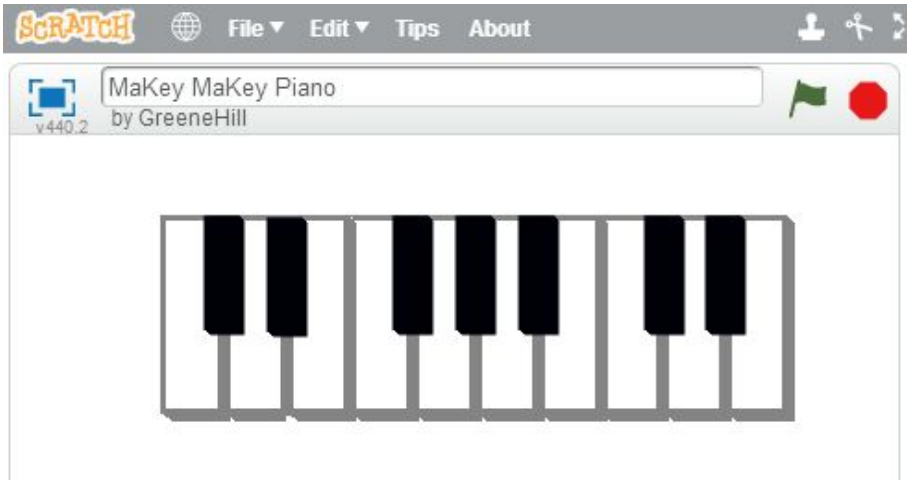




MaKey MaKey



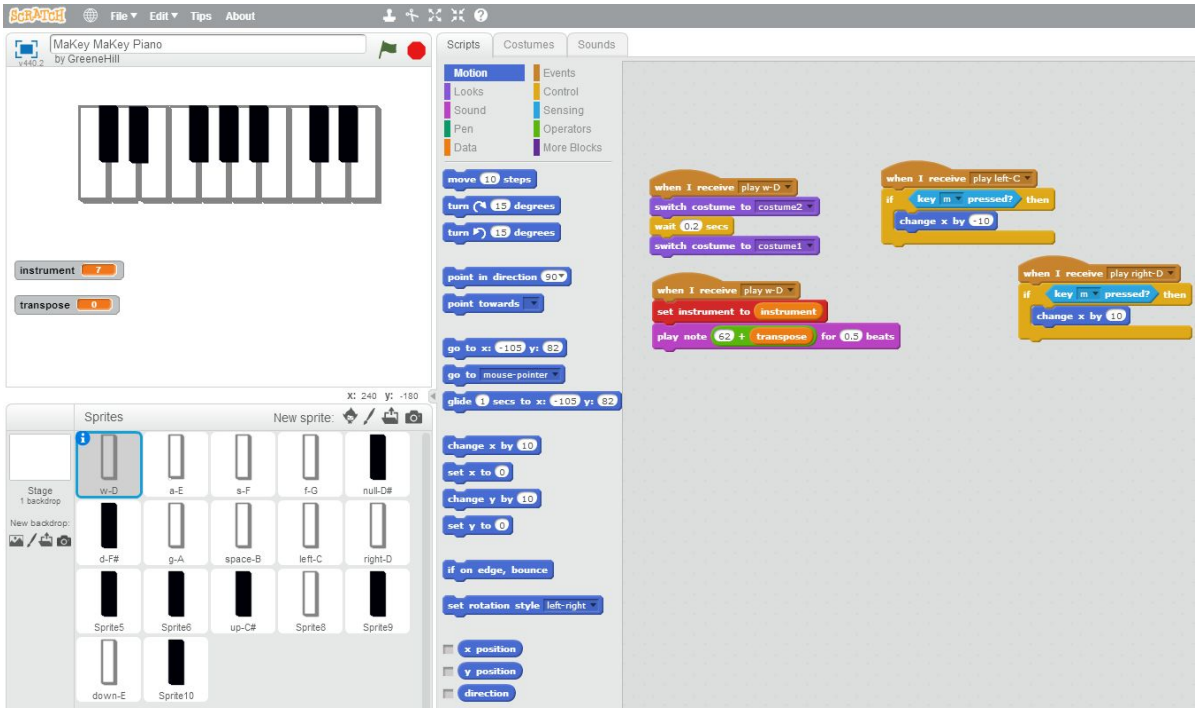
What am I doing?

Playing a piano like none you've played before

1. In one hand, hold the METAL end of the RED ground cable
2. With your other hand, make some music with the "keys"
3. You've completed a circuit!

Take it to the next level

1. Click on the "Scripts" tab and take a look at different pieces of code
2. Change instrument sounds! Hold down the "M" button on the keyboard, then select 1,2,3,4, or 5.



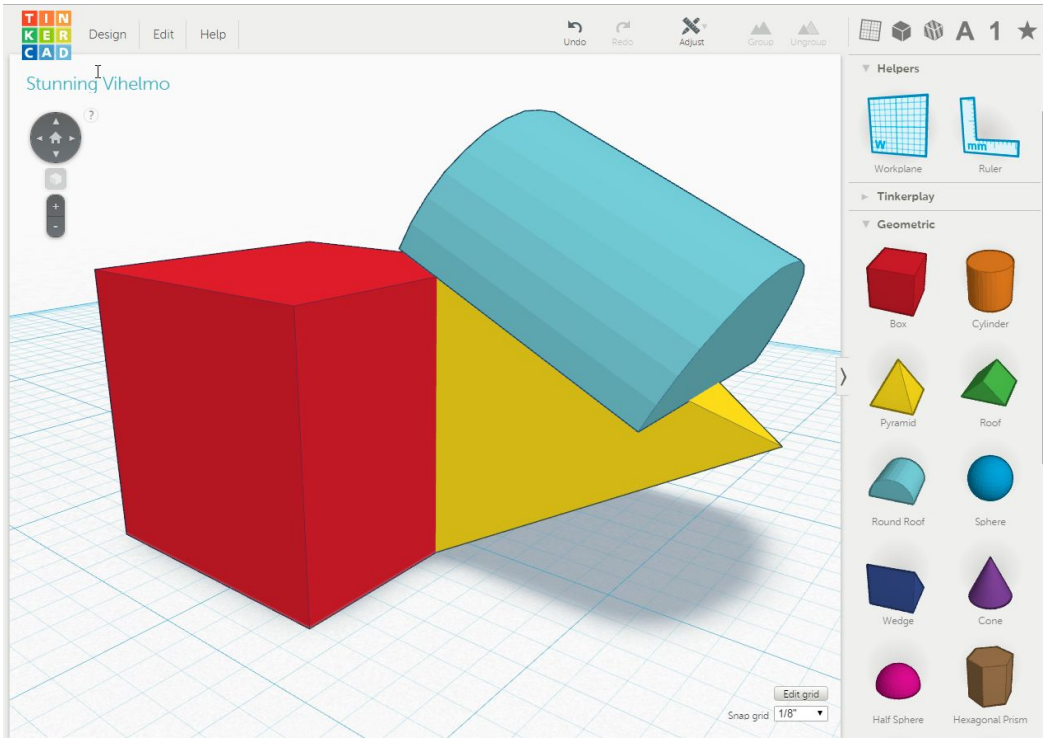
What are we getting out of this?

- Gaining a basic understanding of conductivity and circuits
- Excuse to play the piano
- Seeing what Scratch programming looks like
- Understanding of how digital instruments work

Resources

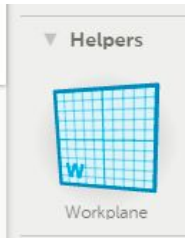
Getting started guide, http://makeymakey.com/howto.php
Borrow Makey Makey from Albertsons Library, http://boisestate.worldcat.org/oclc/904999462
Lesson plans, http://makeymakey.com/lessons/
Piano used in workshop, https://scratch.mit.edu/projects/10836772/
Scratch and Makey Makey games, https://scratch.mit.edu/studios/223260/
Makey Makey instruments, https://scratch.mit.edu/studios/223257/

3D Design & Printing

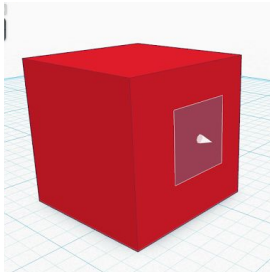


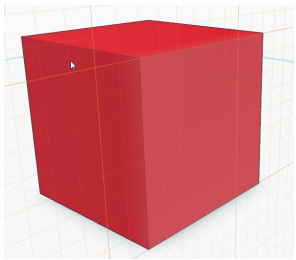
What am I doing?

Adding a piece to the collaborative design!

1. Right click (middle finger), hold and drag to rotate around the object.
2. Decide which side you want to add a shape to.
3. Click and hold the workplane tool 

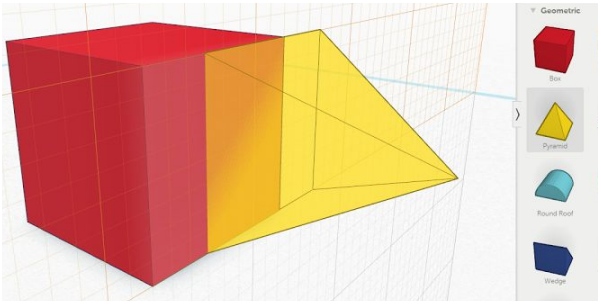
4. Drag it to where you want to place your shape on the existing shape, then let go



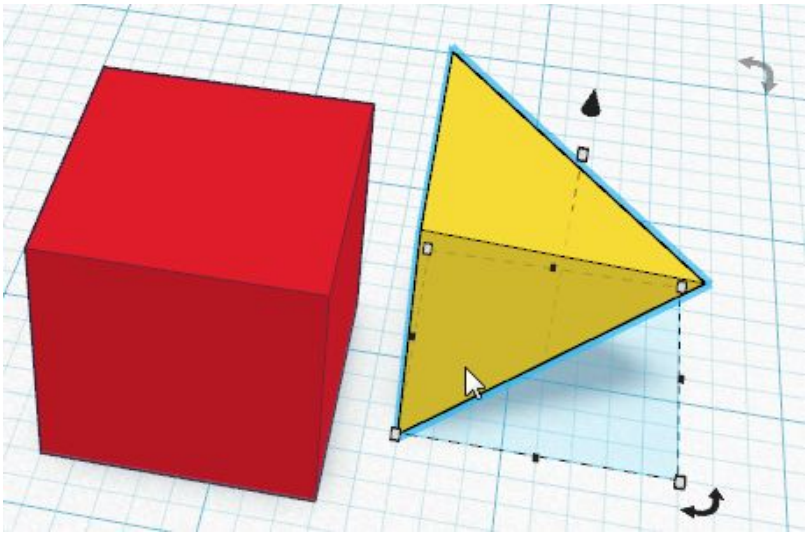


5. Select a new shape from the options on the right.

6. Attach the new shape on the side you selected.



7. Are all the pieces touching? If so, then your design will print successfully! No? Don't worry! Try selecting and moving each piece individually until they touch.



8. Now you're designing in 3D!

What are we getting out of this?

- How to manipulate shapes in a 3D environment
- Increasing digital literacy skills
- Gaining experience collaborating
- Gaining an understanding of how designs are translated from virtual to real

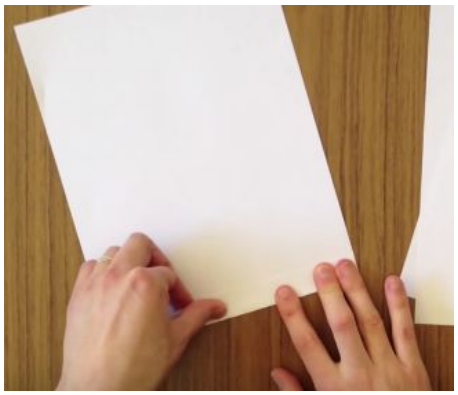
Resources

TinkerCAD, www.tinkercad.com
TinkerCAD lessons, https://www.tinkercad.com/about/learn
Quick TinkerCAD video, https://youtu.be/erEUtG8SejE

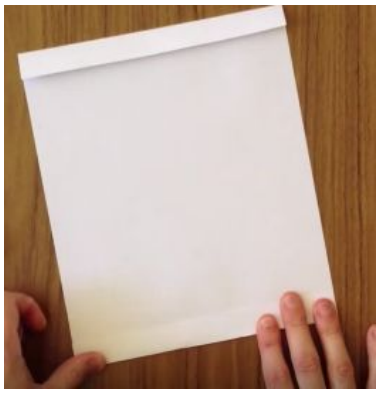
Pop Filter

What am I doing?

Making a pop filter! You'll need 3 pieces of paper and 1 tissue.

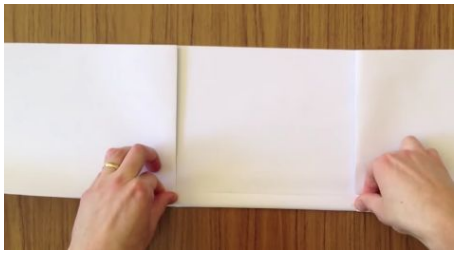


Make a ½ inch fold along side the bottom of all three sheets of paper



On the last sheet make a ½ inch fold on the top and the bottom

Lock the three sheets together using the folds



Make a ½ inch fold across all three locked pages together

Keep folding until you have just one more fold left

Flip it over and make the last fold in reverse

Shape the frame by bending it into a circle, and the gently fold the frame in half without creasing

About a half inch away from where the paper joins, make a tear on the front side of the frame halfway through

Now make a tear on the other side, only this time make the tear at the back

Now join them together flush, creating a loop	Shape it together into a circle	Hold the frame in front of the mic and fold the tabs at a 90 degree angle to wrap them around the microphone
Make two more tears at the rear frame, join them, to connect the frame to the microphone	Slide your thumb into the folded frame channel and tuck the edges of the tissue all the way around the frame.	Viola!

What are we getting out of this?

- Critical reflection on audio quality
- Acquire skills to improve audio quality
- Experiment with audio sounds & designing
- Connects abstract concept with real world tool

Resources

Book: Podcast Solutions: The Complete Guide to Audio and Video Podcasting by Michael W. Geoghegan and Dan Klass

Video: http://bit.ly/librarypopfilter

Sound Booth

Green Screen and Lighting

Audio

Video

Whoa, the library has a sound booth that I can use to record instructional videos for my classes? And where I can send students to edit their videos?

Yes, yes we do!

A room on the 4th floor of the library that is quiet where you can record and edit audio.

- 1 Yeti Blue USB microphone
- 1 sound proofed room with a locking door
- 1 computer with Adobe Creative Cloud and Audacity
- dual monitors

It's on a collaborative floor, but it's an isolated room far away from group study areas.

How can I use it?

You can reserve the room using our online form:

http://boisestate.libcal.com/booking/avrooms or through http://makerlab.boisestate.edu

The sound booth can be reserved 4 weeks in advance.
Students can reserve 2 time slots a week.
Each time slot can be 3 hours or less.

Speed Tinkering

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Hello!

Deana Brown

- Loves vegetables
- Gets a kick out of informal learning and ah-ha moments
- Is crafty

Amy Vecchione

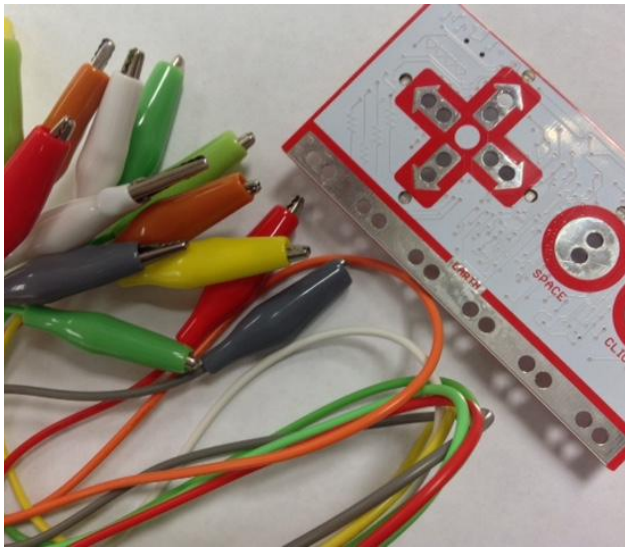
- Loves shoes
- Enjoys helping students make their ideas a reality
- Likes hiking

What are we doing?

- 3 stations @ 5 minutes each
- Basic instructions
- Potential learning outcomes
- Hands on time
- One example of how could use in your class

Stations

Makey Makey Piano



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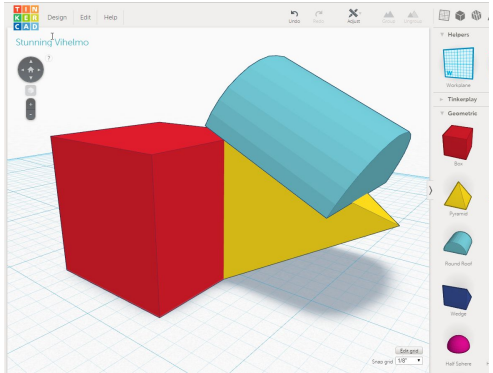


DIY Pop Filter

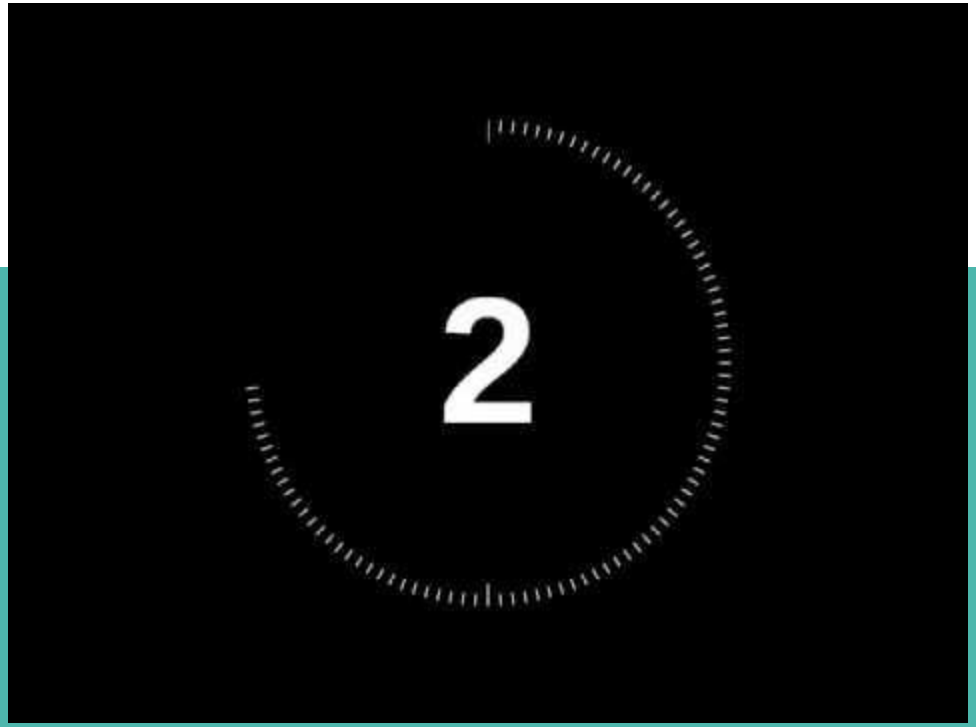
Ready?.....

Set.....

GO!!!!!!

Tinker!

Change Stations



Pair up

Share an *ah-ha* moment

Ideas

- What will you walk away with?
- What do you know now?
- What are you excited about?
- What are you confused about?

ideas
!DEAS
ideas
ideas
ideas
ideas
IDEAS

Thank you!

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