



Bridging Learning Communities with Scratch and Makey Makey

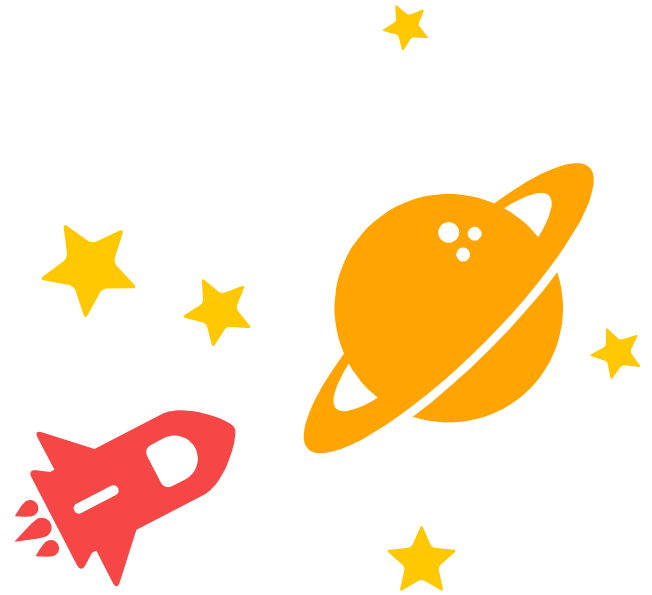
**ACRL DVC 2018 Spring Program
Muhlenberg College**

Overview

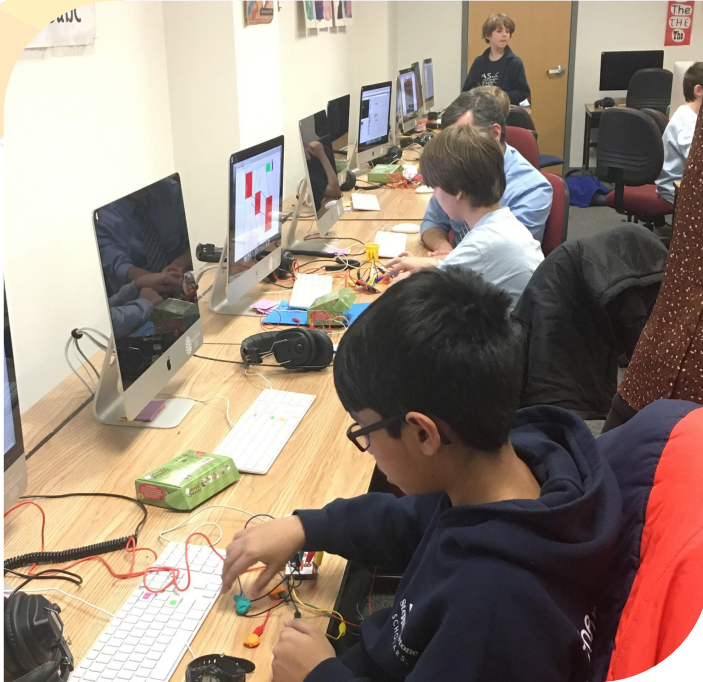
- ▶ **Penn Libraries Commons + Penn Alexander School partnership**
- ▶ **Scratch & Makey-Makey intro**
- ▶ **Teamwork: build a project!**
- ▶ **Future directions & questions**



Our Partnership Projects



Penn Alexander School



Project:

Run a weekly after-school club teaching Scratch and Makey Makey to 5th and 6th graders at Penn Alexander (PAS)

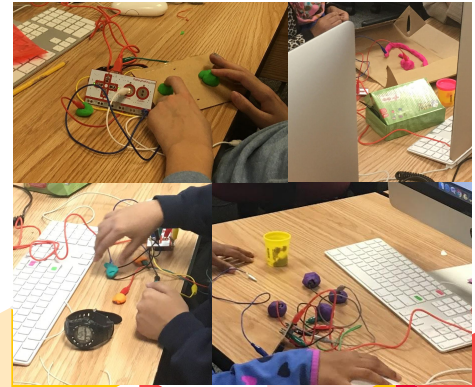
Participants:

- ▶ Penn librarians
- ▶ Penn undergraduates
- ▶ PAS Technology Specialist
- ▶ PAS students

So you're surrounded by middle schoolers...



- ▶ Dive in!
- ▶ Scalable lessons - adapt to varied skill levels
- ▶ Plan to throw out your plan
- ▶ Learn together
- ▶ **PLAY-DOH**



Hoesley Digital Literacy Fellows



A year long exploration of:

Building a Website, Career Development
Graphic Design, Visual Literacy
Web Resources, Spreadsheets, Presentations
Online Collaboration, and Management



Project Objectives:

Learn basic coding in Scratch

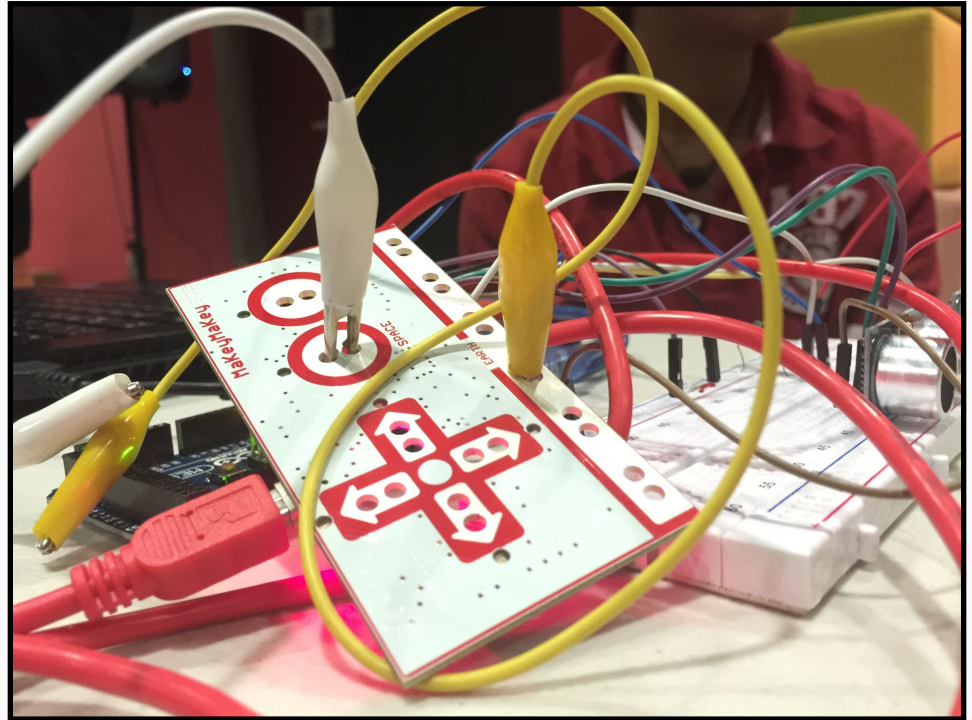
Troubleshoot Makey Makey hardware

Create instructional artifacts for PAS

Present one workshop with your team in Spring 2018

Film/voice-over your lesson plan

Upload your work to Portfolium





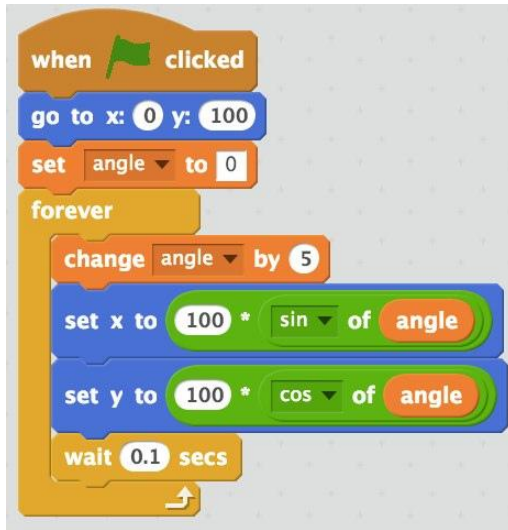
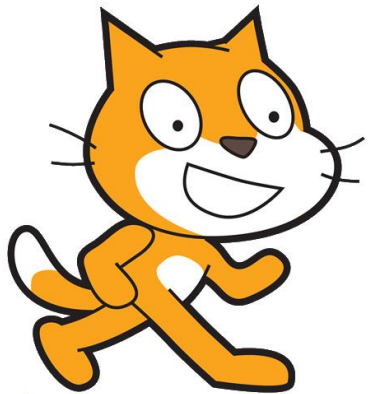
But first...
What are Scratch
and Makey Makey?






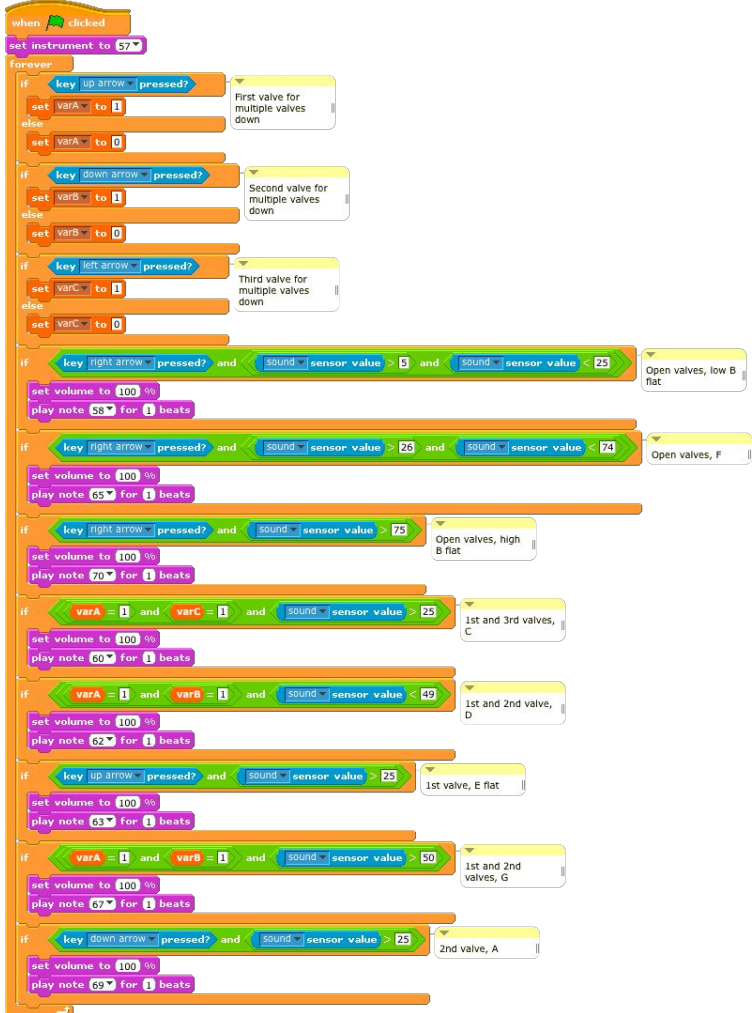
Scratch

A stepping stone to more advanced computer programming.



Scratch is a graphical or visual programming language built by the MIT media lab that lets you program by dragging and dropping puzzle pieces.





Projects can be simple...
or much more complex!

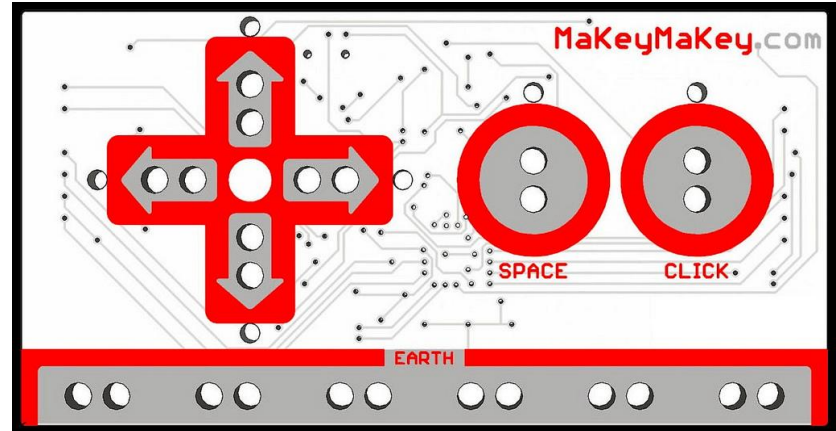
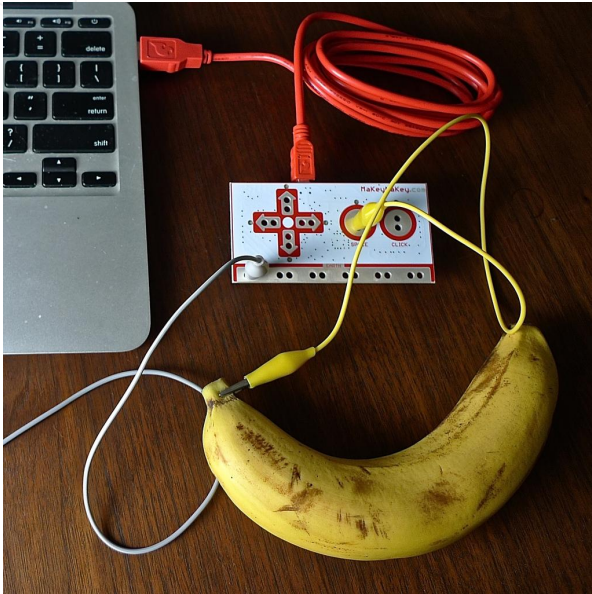
Scratch includes:

- ◀ Boolean logic
- ◀ Loops
- ◀ Variables



Makey Makey

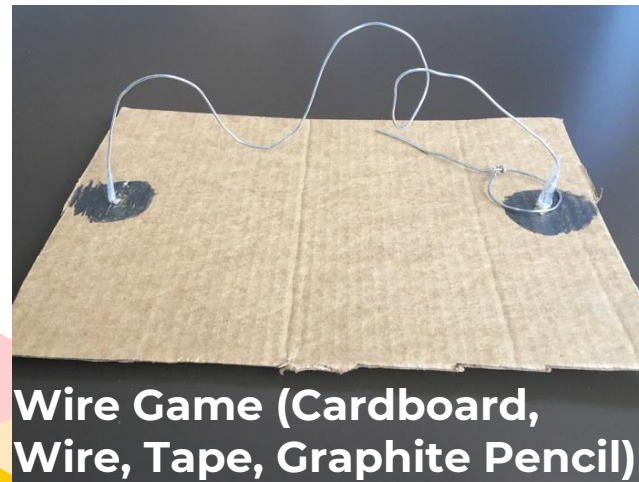
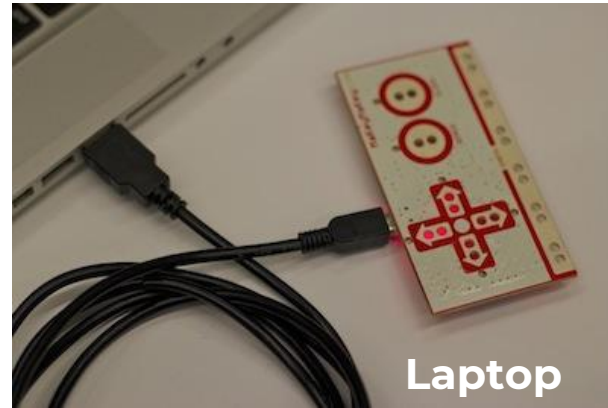
An “invention kit” that allows you to replace computer keys or a mouse left click with conductive objects.



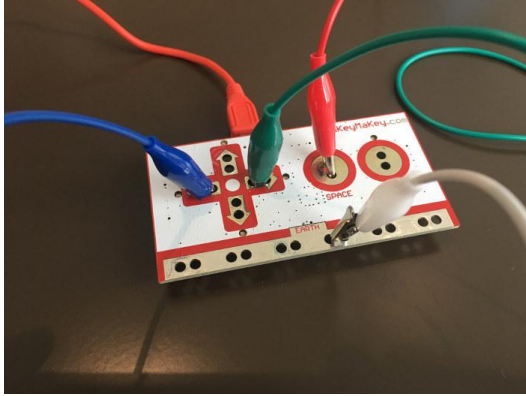
Getting set up!



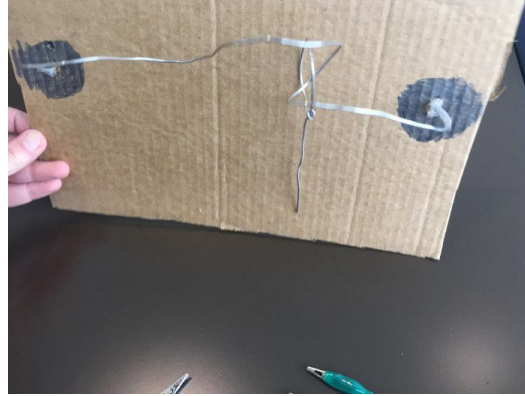
Your supplies:



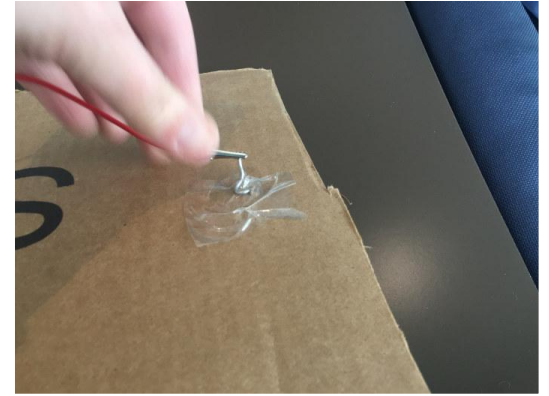
Take five minutes to get set up!



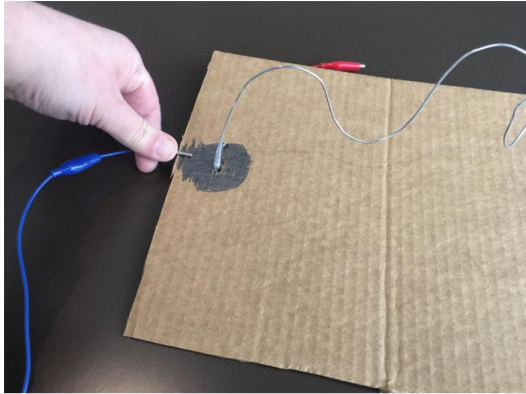
Set up your Makey Makey



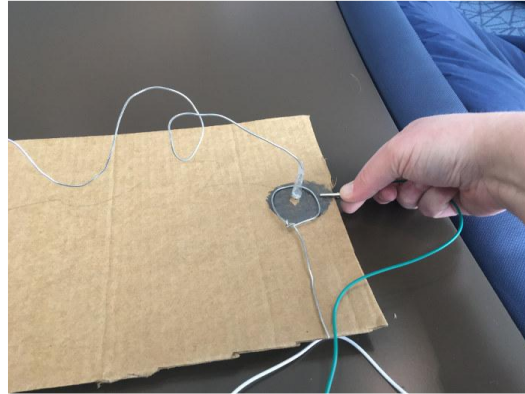
Flip the board to find the end of the wire



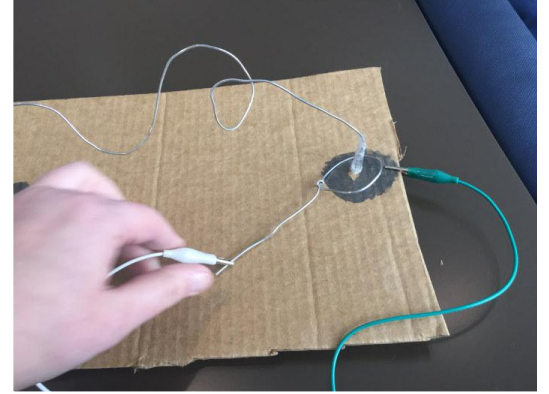
Attach the spacebar clip to the end of the wire



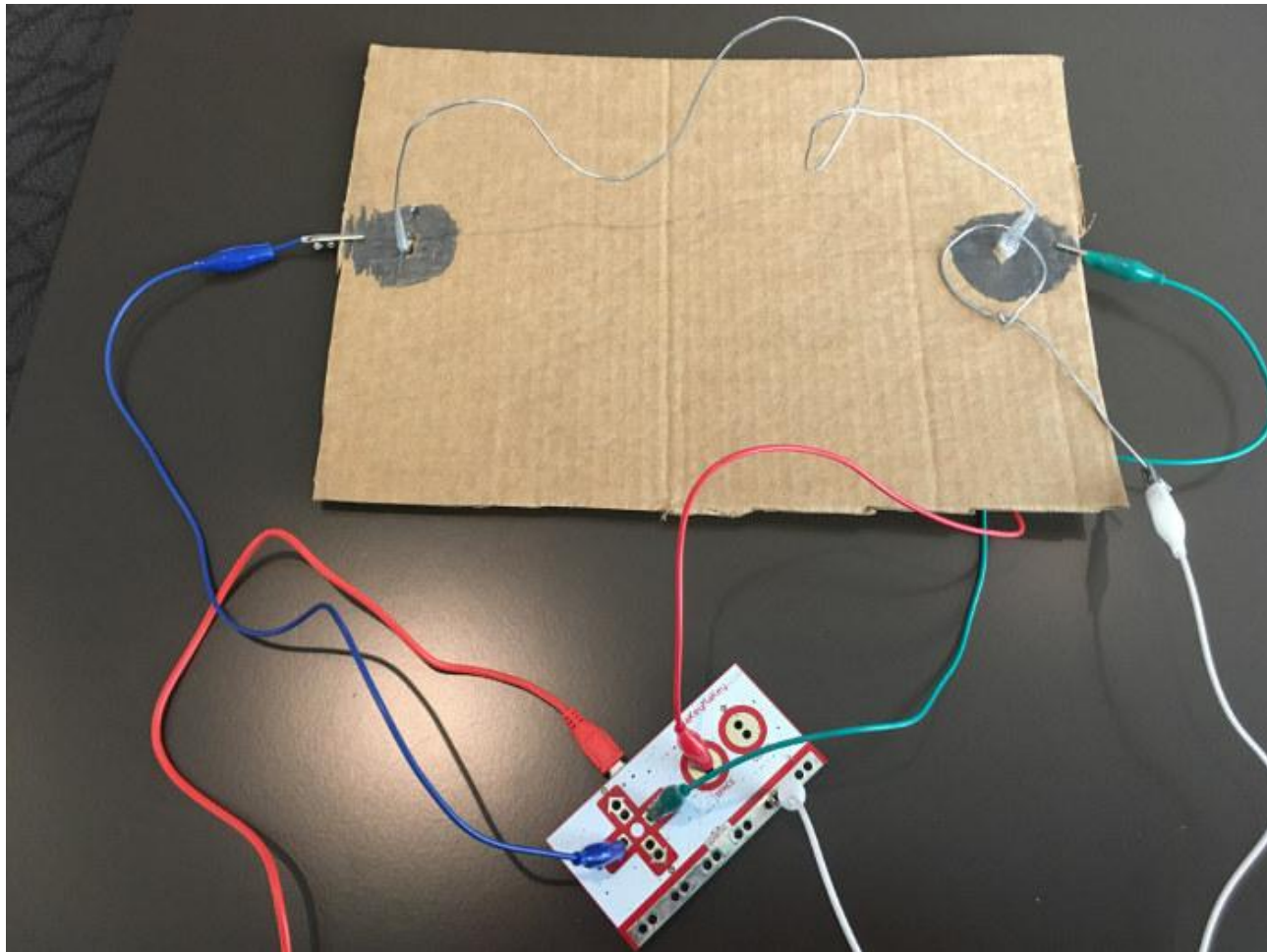
Attach the left arrow to one graphite circle



Attach the right arrow to the other graphite circle

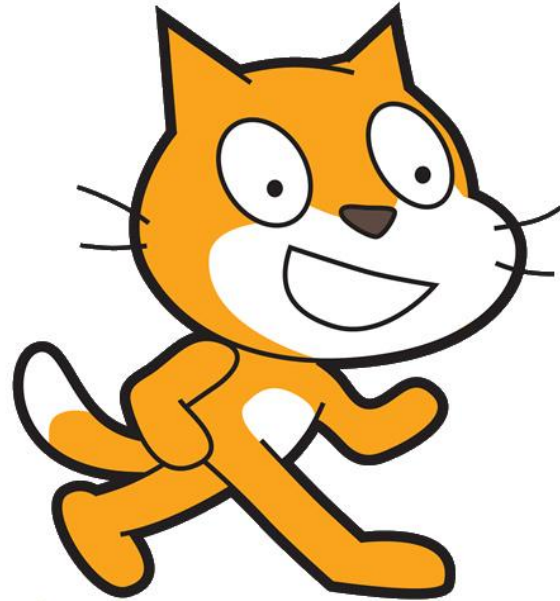


Attach the earth clip to the wand





Demo!



<https://tinyurl.com/acrlDvc1>



Choose your project - 10 Minutes

Project 1: Easy

Finished product.
Just connect the
Makey Makey, and
you're ready to play.

[https://tinyurl.com/
acrlDvc1](https://tinyurl.com/acrlDvc1)

Project 2: Medium

Assemble the
puzzle pieces
yourself, and you're
ready to play.

[https://tinyurl.com/
acrlDvc2](https://tinyurl.com/acrlDvc2)

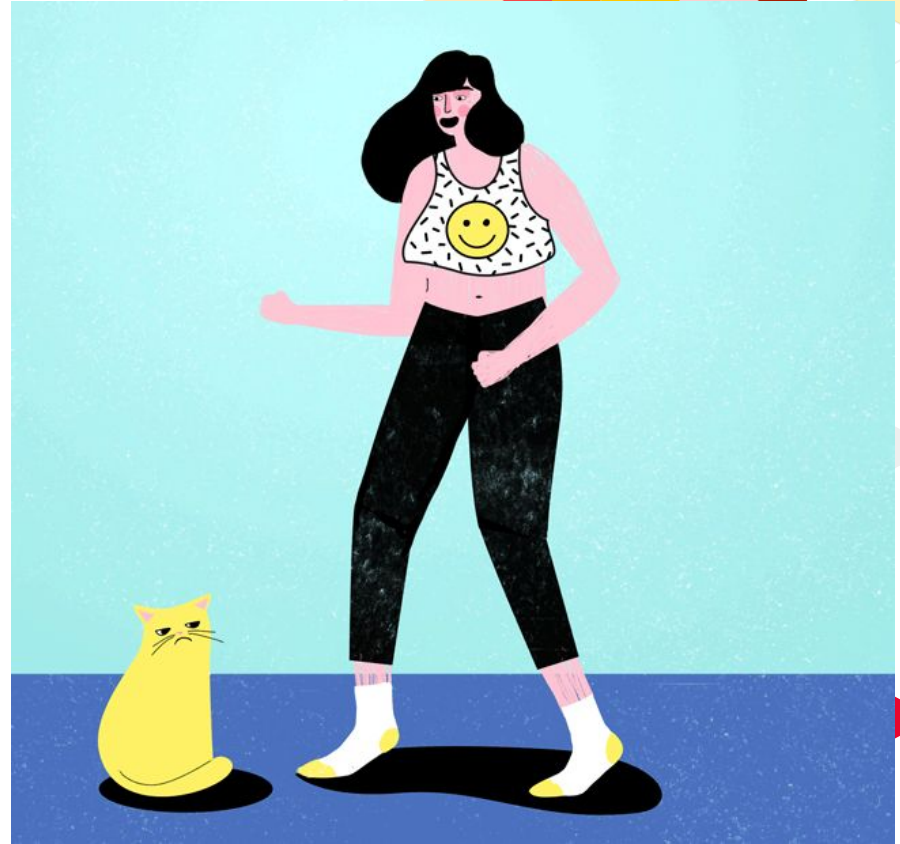
Project 3: Hard

Start from scratch.
You decide which
puzzle pieces to use
and how they
should be arranged.

[https://tinyurl.com/
acrlDvc3](https://tinyurl.com/acrlDvc3)

Already done?

- ▶ Change the sound
- ▶ Change the background or your sprites
- ▶ Create an intro to the game



How did it go?

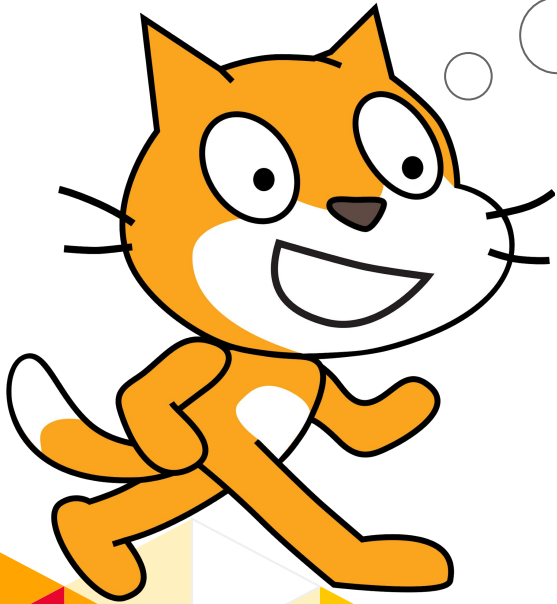
- ◀ What was new or surprising?
- ◀ Any stuck points?
- ◀ Team victory stories?



Now what?



Getting started



Who?

- ◀ Existing partnerships?
- ◀ Instructors - staff? students?

Partner's resources

- ◀ Space, equipment, staff expertise

Costs

- ◀ Makey Makeys (\$50), project supplies, transportation
- ◀ Grant opportunities?

Going forward

- ◀ Celebrate!
 - Party at Penn Libraries for Hoesley Fellows, PAS students, and PAS parents
- ◀ Reflect and plan
 - What to keep? What to change?
- ◀ Expand
 - Pursue other partnerships (e.g. other local schools, public libraries, community centers)



Thank you!

Questions?

Contact Chava:
chavas@upenn.edu





Photo credits:

Slide 10: Scratch blocks by [Wesley Fryer](#)

Slides 10/17/22: Scratch cat by [andresmh](#)

Slide 12: Banana + Makey Makey by [The Marmot](#)

Slide 12: Makey Makey by [jayahimsa](#)

Slide 19: GIF by [GIPHY Studios Originals](#)

