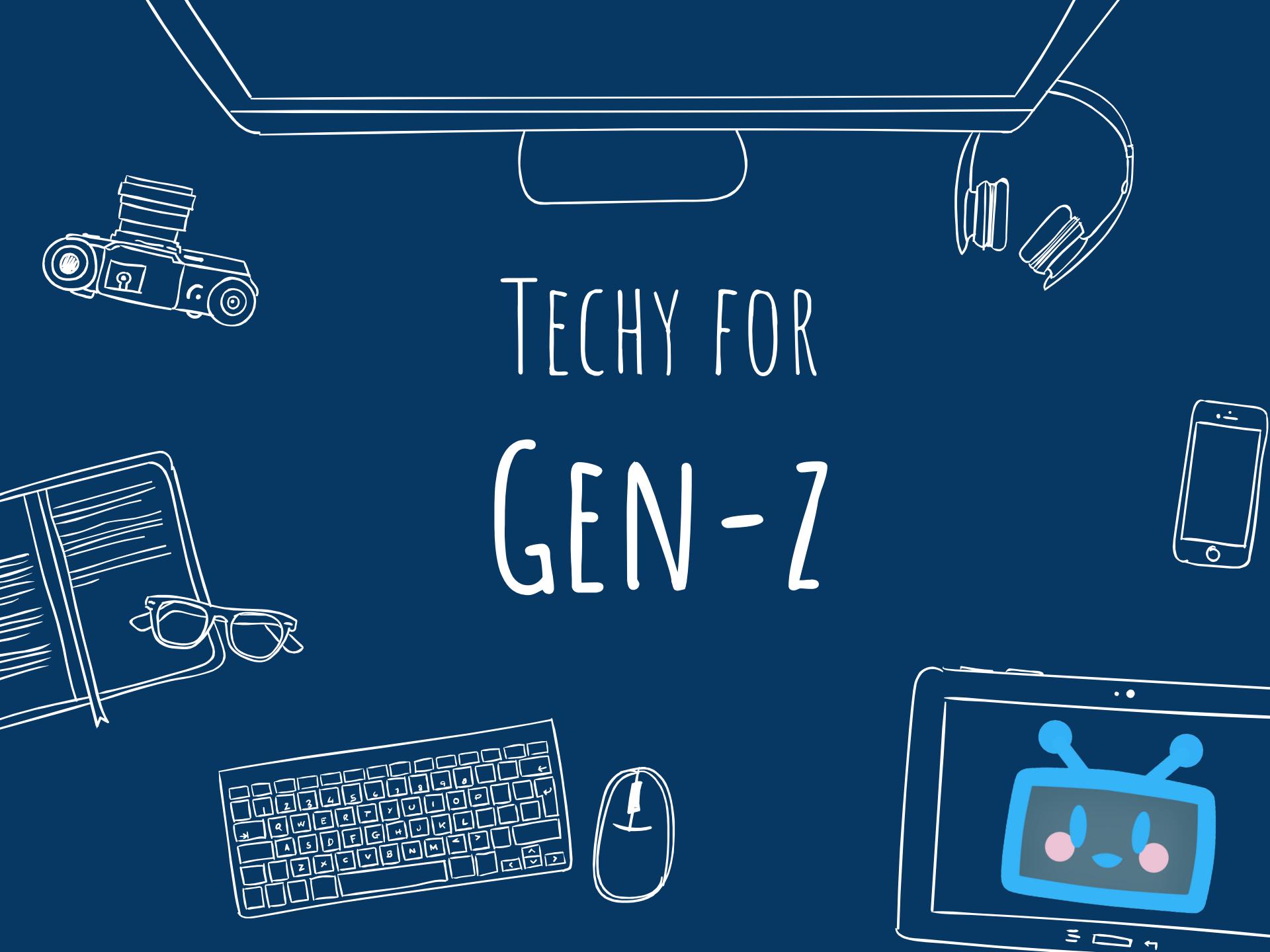
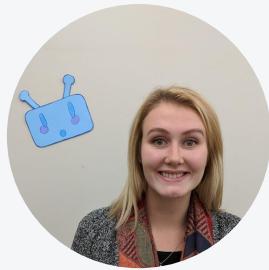


# TECHY FOR GEN-Z





HELLO!

# I am Ashley

VP Outreach - External  
University of Alberta

You can reach me at:  
[aholgate@ualberta.ca](mailto:aholgate@ualberta.ca)  
[linkedin.com/in/amholgate](https://linkedin.com/in/amholgate)



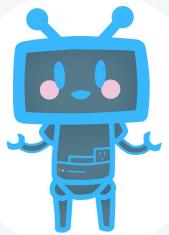
HELLO!

# I am Xinyue (Rex)

VP Events  
University of Alberta

You can reach me at:  
[xxiang2@ualberta.ca](mailto:xxiang2@ualberta.ca)  
[linkedin.com/in/XinyueXiang](https://linkedin.com/in/XinyueXiang)





HELLO!

# We are Ada's Team

A group of students at the University of Alberta dedicated to promoting diversity in Computing Science and STEM.

You can find more on us at:

[www.adasteam.ca](http://www.adasteam.ca)

# OUR AGENDA

1.  
Different  
Tech

2.  
*Why we are  
showing  
you*

3.  
*What you  
can do with  
this*

4.  
Let's  
play!

# GOOGLE CARDBOARD

- ✖ ~\$2 Virtual Reality
- ✖ Download app on phone and ready!



# DRONES

- \* UVA - Unmanned Aerial Vehicle
- \* AKA Drone
- \* Camera functionality



# COZMO

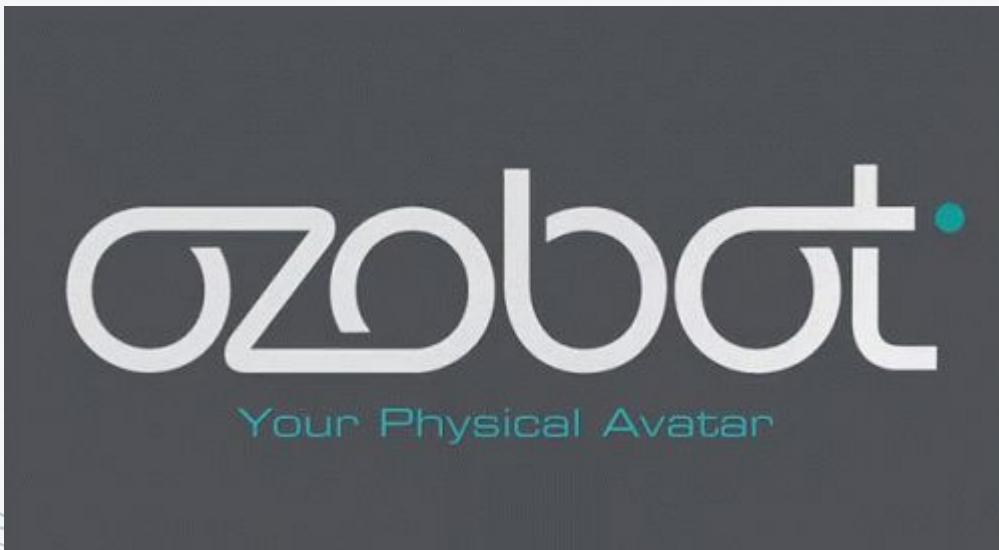
- ✖ Preprogrammed and programmable
  - ✖ AI and computer vision.
  - ✖ Can recognize faces!
  - ✖ ~\$200





# Ozobot

- ✖ Pocket-sized coding robots that come with many ways to play, create, and share!
- ✖ Video: Ozobot teaches kids coding basics



# SPHERO

- ✖ Many versions
- ✖ Preprogrammed and programmable
- ✖ \$100-\$200



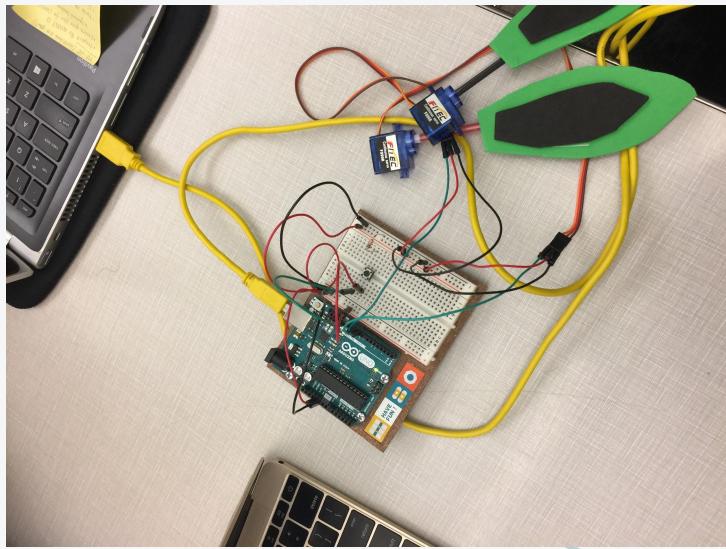
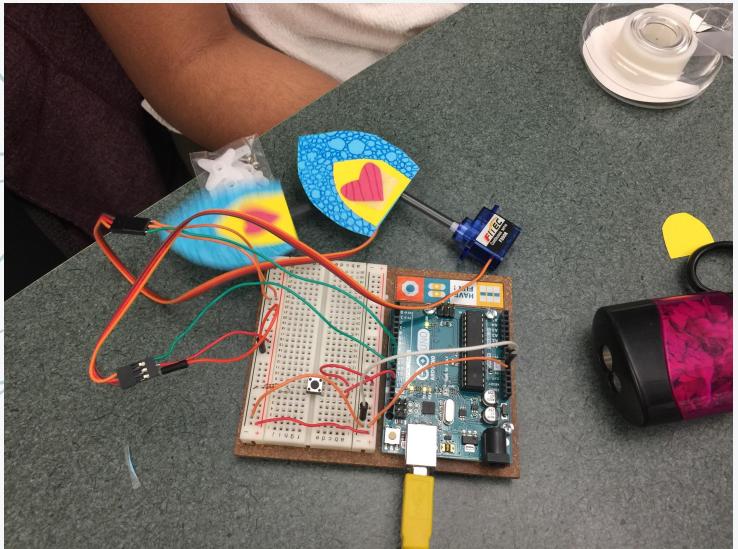
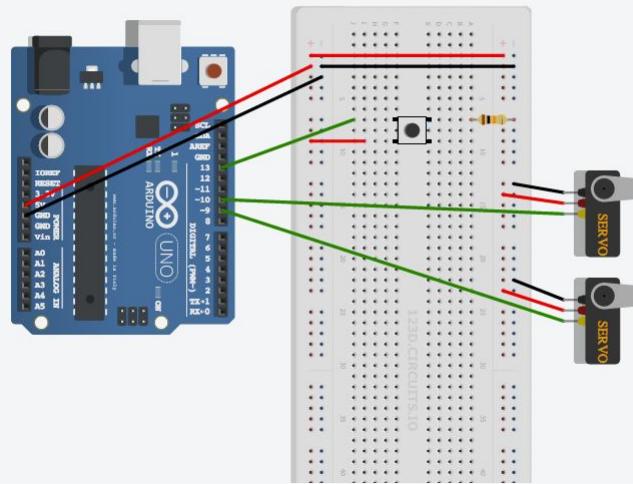
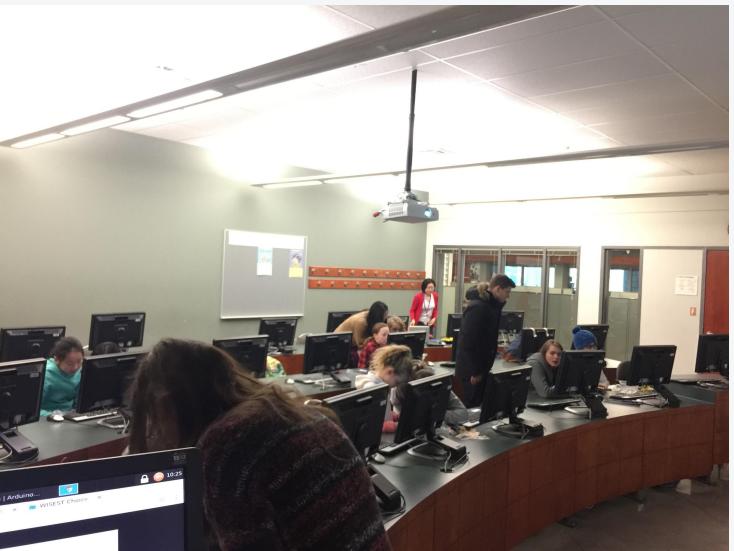
# ARDUINOS

- \* We did this Ada's Arduinos Workshop in the Choice Conference, Edmonton, 2018 Winter
- \* You can find our project Ada's Arduinos at:  
[adasarduinosteam.wordpress.com/2014/02/10/cat-ears/](http://adasarduinosteam.wordpress.com/2014/02/10/cat-ears/)



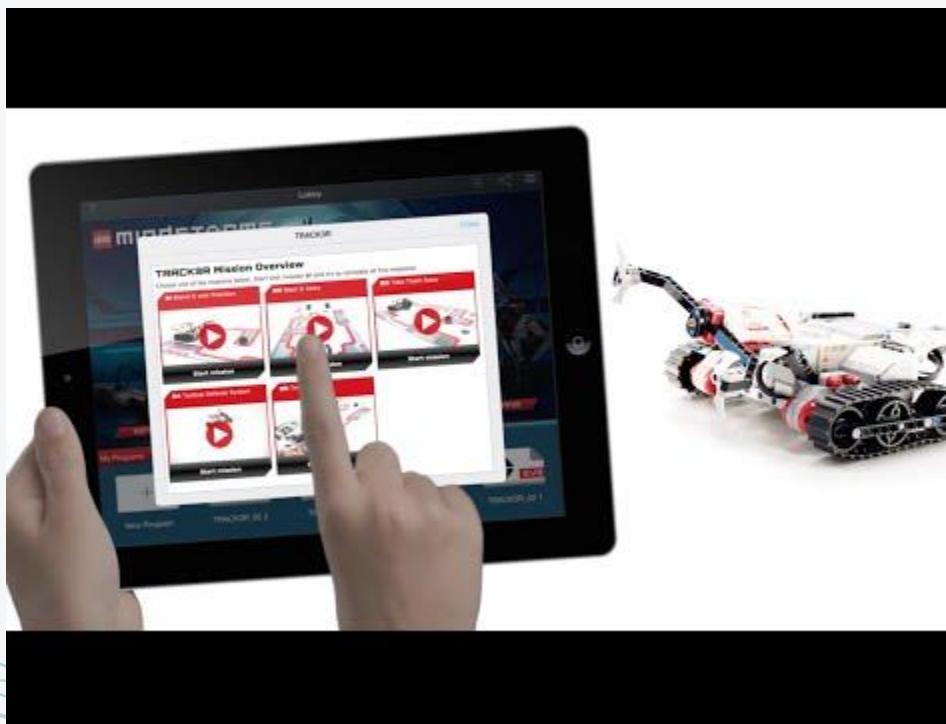


# ARDUINOS



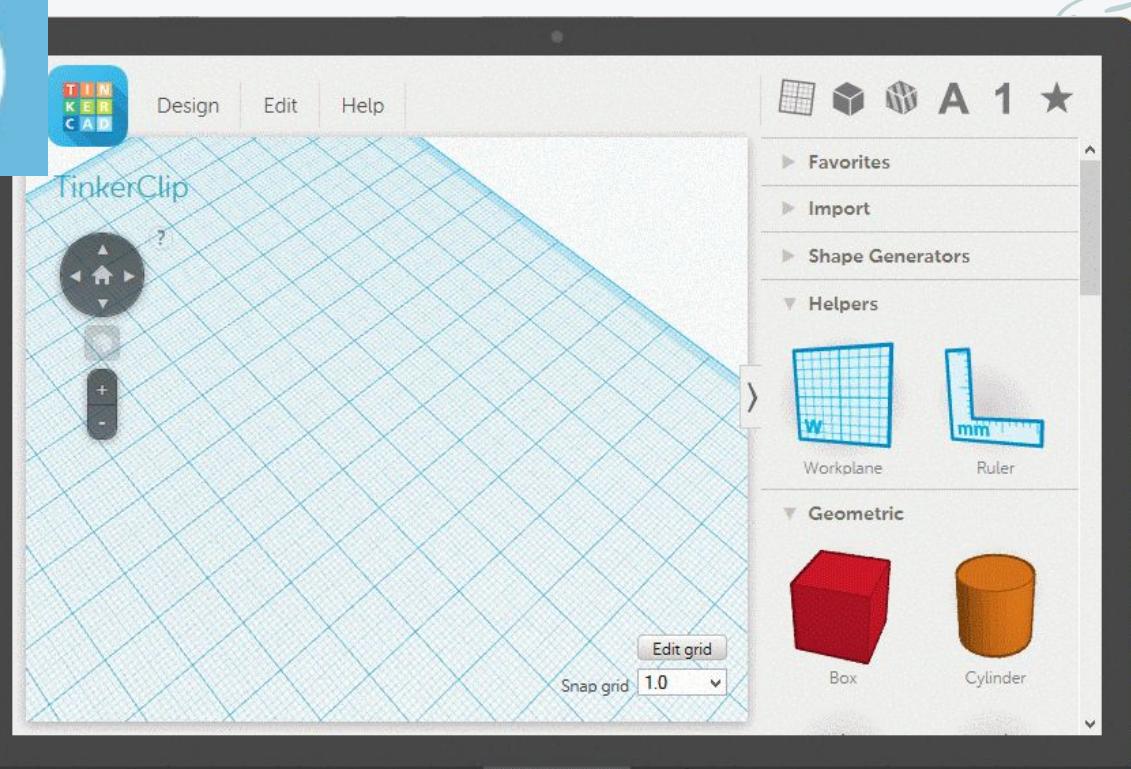
# MINDSTORMS

- ✖ ~\$400+
- ✖ Block programming and building



T I N  
K E R  
C A D

- ✗ Friendly 3D modelling software
- ✗ Print designs with 3D Printer



# bitsbox



```
1  reset('green')
2  function tap() {
3      stamp('ball',x,y)
4  }
```

- ✖ Code your own app!
- ✖ Grab one of their cards or books and follow their code.



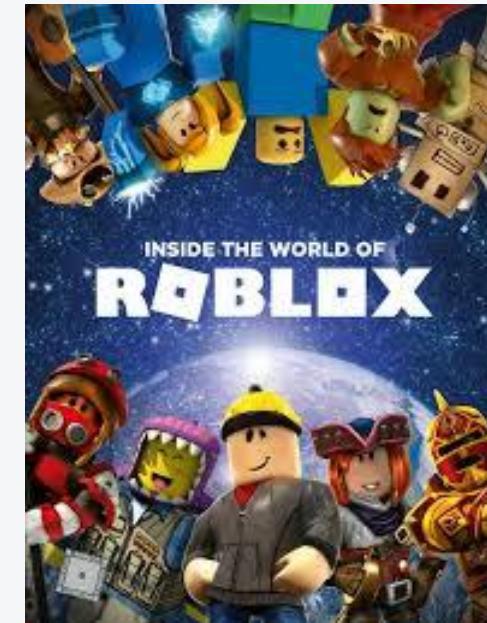
# MINECRAFT

- ✖ Build a 3D world.
- ✖ Variety of different blocks to build with.



# ROBLOX

- \* Roblox is a gaming site for kids & teens
- \* Lets users play games, create adventures, and role play in a 3D environment
- \* Can be accessed on many platforms



# COMPUTER VIRUS HANDSHAKE MURDER

- \* Not every child will have access to computers, expensive robots, or wifi.
- \* Can you teach about tech with no tech?

Make one child the ‘computer virus’ and another the ‘computer engineer’. The virus will have to go through and ‘email’ (shake hands) with all the other ‘computers’ (other children).

# HTML WEBSITES

- ✖ Static html websites allow kids to be creative
- ✖ Can be done even with GRADE 3'S

Tools to make it even more simple:

- ✖ Mozilla thimble
- ✖ Codepen

# code club

- ✖ Prenda's Code Club
- ✖ Kids have a safe environment to learn how to code
- ✖ Kids + Teachers or Parents + Software





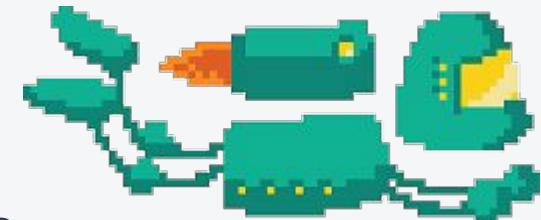
- ★ A programmable small computer!
- ★ Either choose blocks, JavaScript, or Python to code.

The screenshot shows the Microsoft micro:bit code editor interface. At the top, there's a navigation bar with the micro:bit logo, 'Projects', a search icon, 'Blocks' (which is currently selected), 'JavaScript', a help icon, a gear icon, and the 'Microsoft' logo. Below the navigation bar is a preview area showing a micro:bit board with various pins labeled (A, B, 0, 1, 2, 3V, GND) and some icons. To the right of the preview is a 'Getting Started' button. The main workspace is a grid-based area where code blocks are placed. On the left, a sidebar lists categories: Basic, Input, Music, Led, Radio, Loops, Logic, Variables, Math, and Advanced. In the center workspace, a 'forever' loop block is expanded to show an 'if' condition. The 'if' condition checks if the remainder of the index divided by 2 equals 0. If true, it executes the 'show icon' block with a 2x2 grid icon. If false, it also executes the 'show icon' block with a 2x2 grid icon. The code looks like this:

```
forever
  for index from 0 to 4
    do
      if remainder of index ÷ 2 = 0
        then show icon [2x2 grid icon]
        else show icon [2x2 grid icon]
```

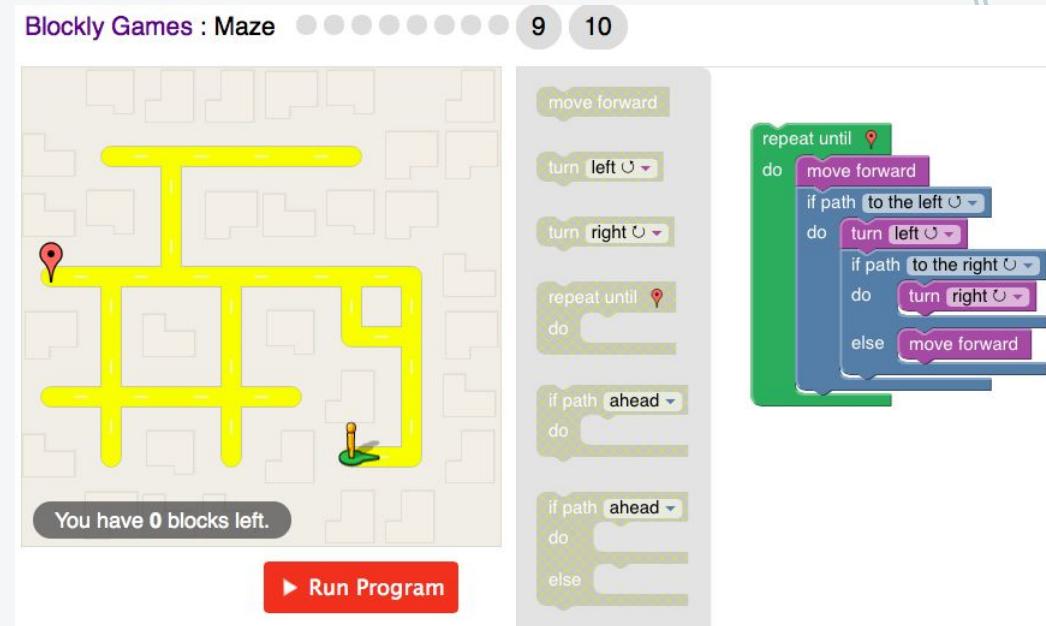
# JETPACK JUMPER

- ✖ Free!
- ✖ Tutorial which makes a game
- ✖ Block code



# BLOCKLY GAMES

- ✖ A series of educational games that teach programming
- ✖ Designed for kids with no prior programming experience
- ✖ Aims to get kids ready to use other languages



# KODU

- ★ A **3D game environment** where you can use an **XBOX controller** to design your world and play!
- ★ Become a **game designer** by programming your own game. Play by your own rules.



# SCRATCH

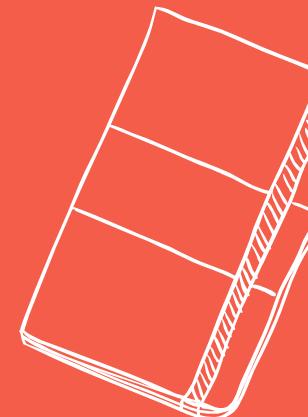
- \* A visual programming language that uses blocks.
- \* Create interactive stories, games, and animations!





# AND SO MUCH MORE

Bringing tech to kids is a huge industry



# WHY IS THIS important?

MacBook Air

3 DRAFTS:  
Discover apps before they launch.  
A curated list of apps coming soon.  
The best apps that are emerging,  
the most interesting now. (From App Store)



# TECH SHOULD BE...

Inclusive

Fun

Exploratory

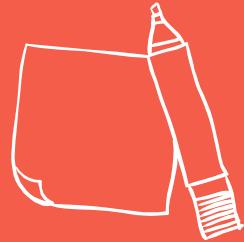
WHY SHOULD THIS  
MATTER TO YOU?



You have the power  
to influence the  
next generation



*Our goal is to make sure everyone feels welcome in tech regardless of age, gender, sexual orientation, race, socioeconomic status or any other reasons.*



# THANKS!

## Any questions?

You can reach us at:

**adasteam@ualberta.ca**



# TIME TO PLAY!

