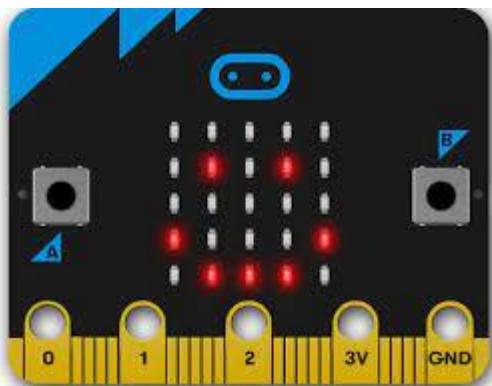


TinkerCAD

Microbit Introduction





<https://www.tinkercad.com/>

Use your **school google account** to log on.

Educators: Let Tinkercad help kickstart your CTE Month while you explore the future of making! [RSVP here.](#)



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+ Create collection

Your designs

Make sure you are
in your design
section

a year ago
Private



Circuits

Click on a new
design

+ New



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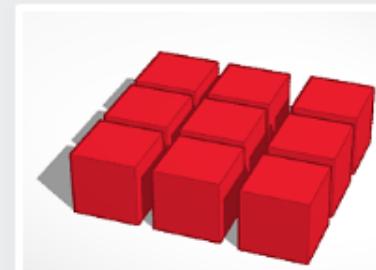
Designs

Tutorials

Collections

+ Create collection

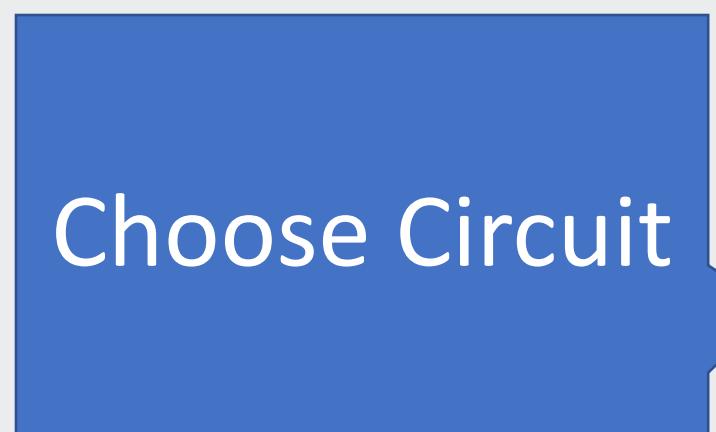
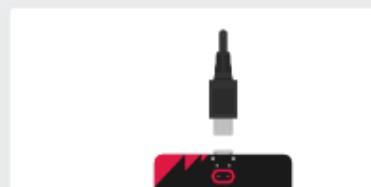
Your designs



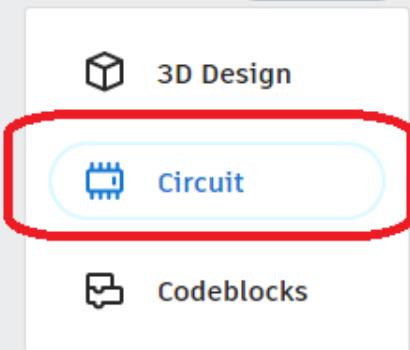
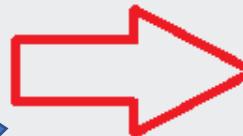
Copy of grid of cube

a year ago
Private

Private



+ New



 3D Design

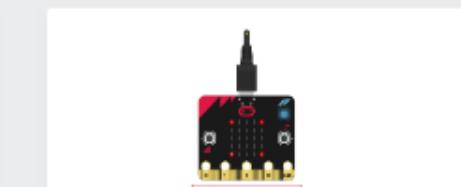
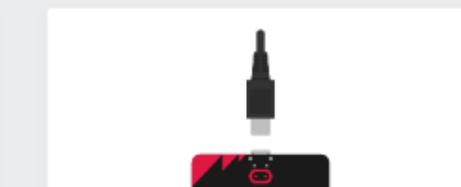


Circuit



Codeblocks

[View 16 more >](#)



Circuit design Cool Kieran-Elzing

tinkercad.com/things/a3QXkCxatzO-cool-kieran-elzing/editel?tenant=circuits

All changes saved

TIN
KER
CAD

Code Start Simulation Send To

Components Basic

Search

Potentiometer Capacitor Slideswitch

9V Battery Coin Cell 3V Battery 1.5V Battery

Breadboard Small micro:bit Arduino Uno R3

Vibration Motor DC Motor Micro Servo

N

PictureSequence

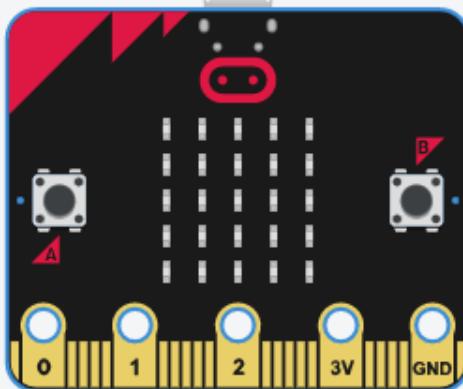
Rename to PictureSequence

Drag a Microbit onto the surface

The image shows a screenshot of the Tinkercad interface. At the top, there's a navigation bar with icons for back, forward, home, and search, along with a URL in the address bar. Below the toolbar, there's a status message 'All changes saved'. On the far left, the Tinkercad logo is visible. The main workspace contains two blue text boxes: one with the text 'Rename to PictureSequence' and another below it with 'Drag a Microbit onto the surface'. A red box highlights the word 'PictureSequence' in the first text box, and a red arrow points from the second text box towards the 'micro:bit' component in the component library on the right. The component library is titled 'Components Basic' and includes categories for Potentiometer, Capacitor, Slideswitch, batteries (9V, Coin Cell 3V, 1.5V), breadboards, and various sensors and actuators like Vibration Motor, DC Motor, and Micro Servo. The 'micro:bit' component is specifically highlighted with a red box and an arrow.



PictureSequence



Your Microbit
should be on
the screen.

Move it over.



All changes saved



Code

Start Simulation

Send To

Components
Basic

Click on the
code button to
move into the
code section.

Breadboard
Small

micro:bit

Arduino Uno
R3Vibration
Motor

DC Motor

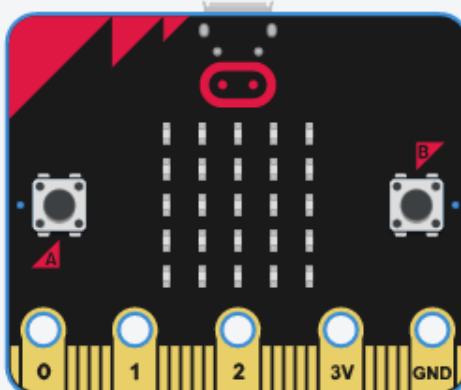


Micro Servo



PictureSequence

All changes saved



micro:bit

Name 1

Color Red

Blocks

Basic Control
Output Math
Input Variables

clear screen

show icon

show leds

show number 0

show string Hello!

plot bar graph of 0 up to 0

on start

show icon

forever

Delete. Move to
the trash



Circuit design Cool Kieran-Elzing

tinkercad.com/things/a3QXkCxatzO-cool-kieran-elzing/edit#circuits

TINKERCAD PictureSequence

micro:bit

Name: 1

Color: Red

Blocks

- Basic
- Control
- Output
- Math
- Input
- Variables

clear screen

show icon

show leds

show number

show string

plot bar graph of

Serial Monitor

Make these.
The blocks are
found in basic.

on button A pressed show icon

on button B pressed show icon

```
graph TD; A((on button A pressed)) --> B[show icon]; C((on button B pressed)) --> D[show icon]
```

Circuit design Cool Kieran-Elzing

tinkercad.com/things/a3QXkCxatzO-cool-kieran-elzing/edit#?tenant=circuits

PictureSequence

TINKERCAD

micro:bit

Name 1

Color Red

Blocks

- Basic
- Output
- Input
- Control
- Math
- Variables

clear screen

show icon

show leds

show number 0

show string Hello!

plot bar graph of 0 up to 0

Serial Monitor

All changes saved

Code

Start Simulation

Send To

Choose start simulation to run your program

micro:bit

on button A pressed show icon

on button B pressed show icon



PictureSequence

All changes saved



micro:bit

Name
Color

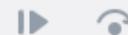
Click the A and
B buttons to
run your code.

Simulator time: 00:00:03

Code

Stop Simulation

Send To



1 (micro:bit)

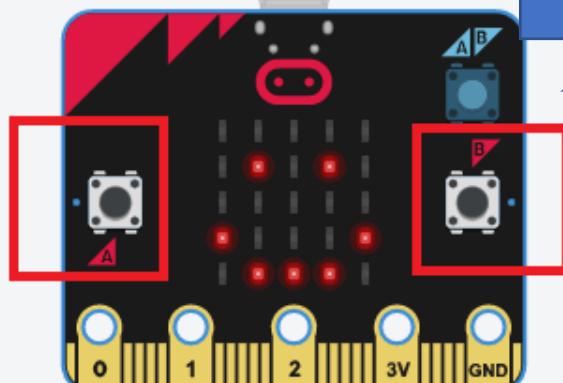
- Control
- Math
- Variables

on button A pressed
show icon

on button B pressed
show icon

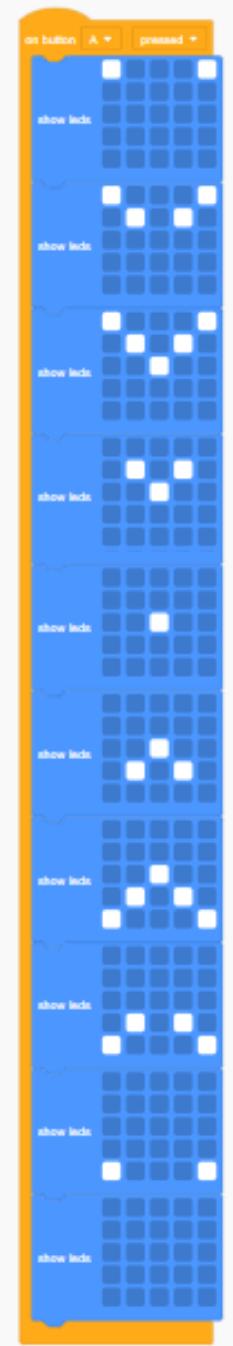
show leds
show number 0
show string Hello!
plot bar graph of 0 up to 0

Serial Monitor



micro:bit 1





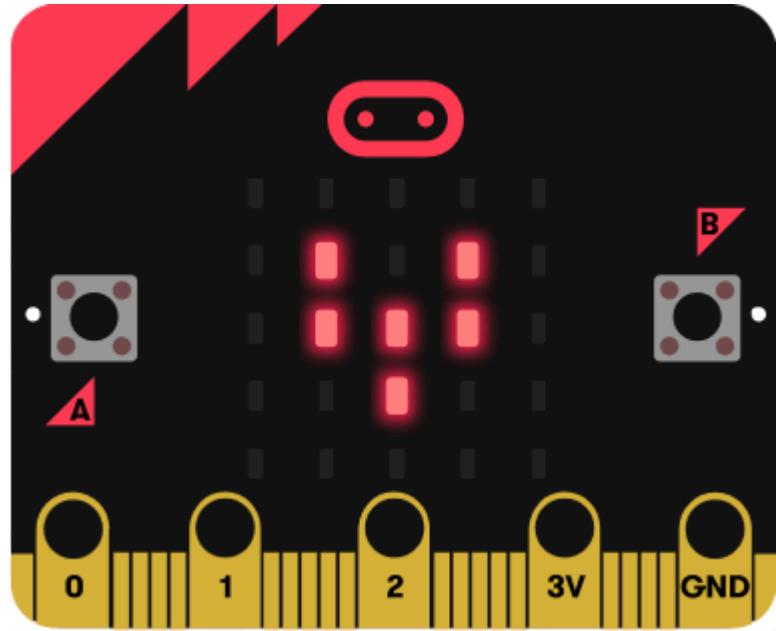
Picture Sequence Assignment

When button A is pressed, an animation of at least 10 pictures will be displayed.

Show your teacher when complete.

The screenshot shows a Tinkercad circuit design titled "PictureSequence". The workspace includes a breadboard with a Micro:bit module connected via USB. On the right, the code editor displays a sequence of "show leds" blocks, each showing a different 8x8 grid pattern. One of these blocks is highlighted with a red box. The code palette on the right lists various block categories: Basic, Control, Output, Input, Math, and Variables. The URL of the project is visible at the top: tinkercad.com/things/a3QXkCxatZ0-picturesequence/edit.

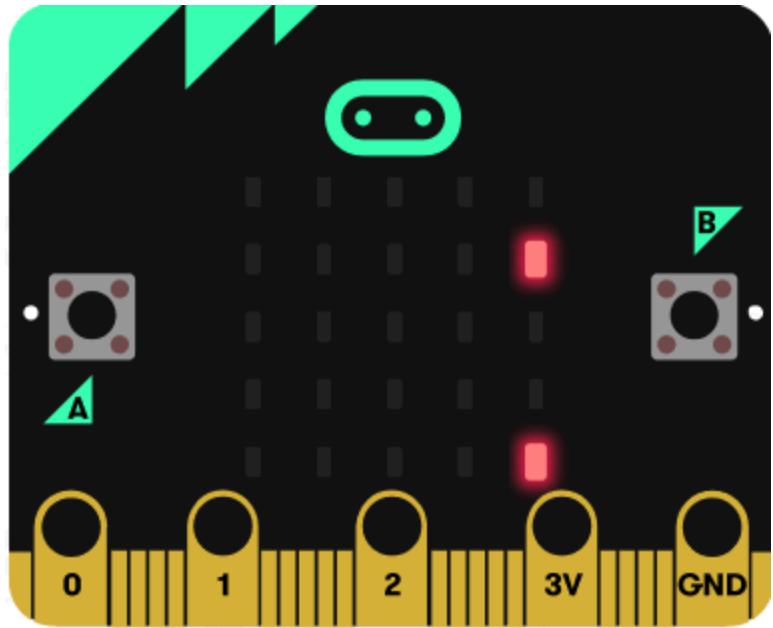
Beating Heart Assignment



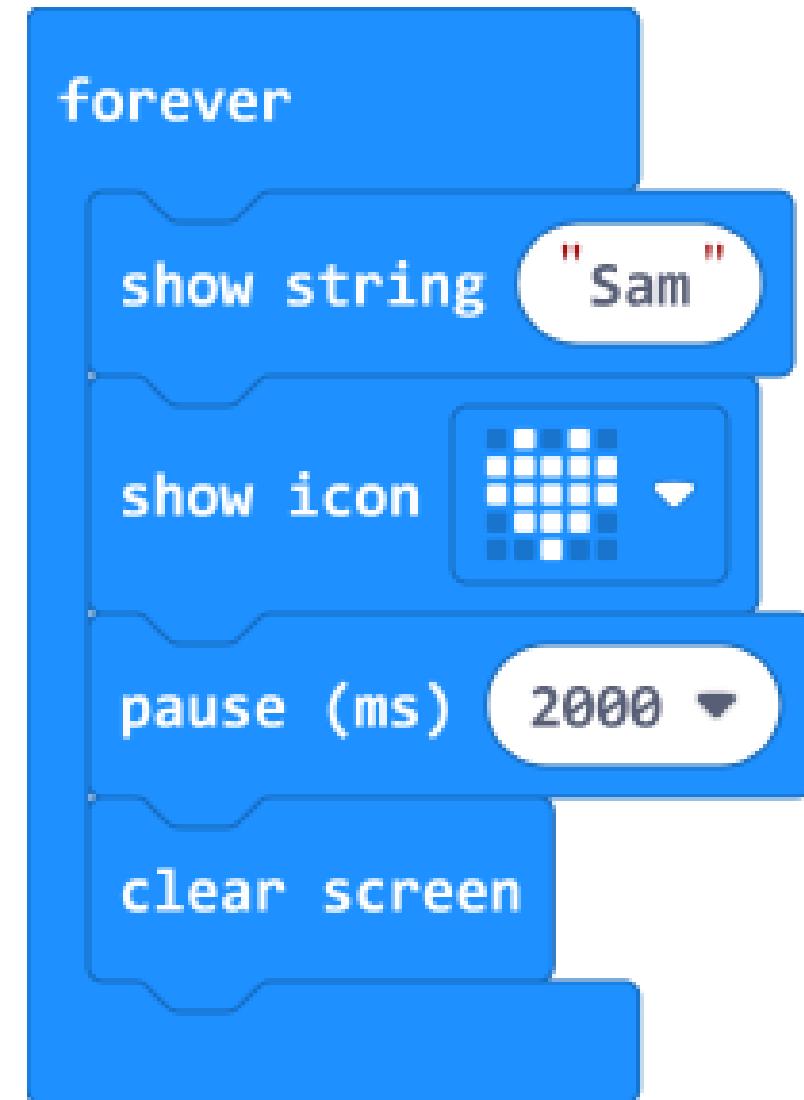
- Make in TinkerCAD.
- Show your teacher when complete.



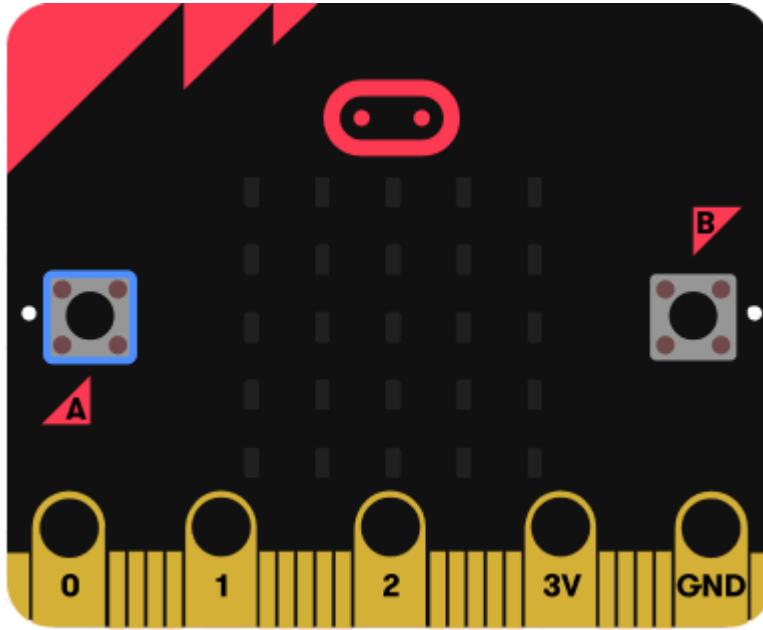
Name Badge Assignment



- Make in TinkerCAD.
- Show your teacher when complete.



Flashing Emotions Assignment



- Make in TinkerCAD.
- Show your teacher when complete.

```
on button A pressed
repeat (4)
  do
    show icon [grid v]
    pause (200 ms)
    clear screen
    pause (200 ms)
end
```

A Scratch script titled "on button A pressed". It uses a "repeat (4)" loop. Inside the loop, it performs four actions: "show icon [grid v]", a 200ms pause, "clear screen", and another 200ms pause.

```
on button B pressed
repeat (4)
  do
    show icon [grid v]
    pause (200 ms)
    clear screen
    pause (200 ms)
end
```

A Scratch script titled "on button B pressed". It uses a "repeat (4)" loop. Inside the loop, it performs four actions: "show icon [grid v]", a 200ms pause, "clear screen", and another 200ms pause.