

Activity Tracker

WHAT: Microbit is a pocket-size programmable computer with integrated sensors and LEDs.



YOUR CHALLENGE: Activity monitors come in all shapes, sizes, and price tags. Using the Micro:bit and Scratch 3.0, design your own activity tracker to get (and stay) moving!



<https://www.flickr.com/photos/curiouslee/14107913899>

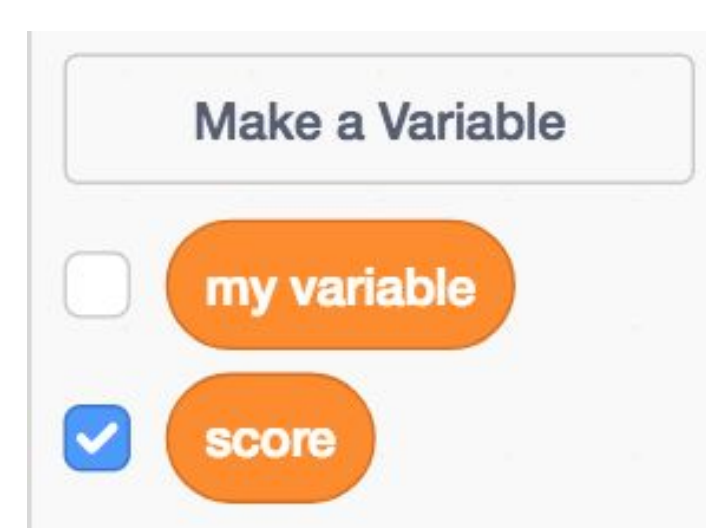
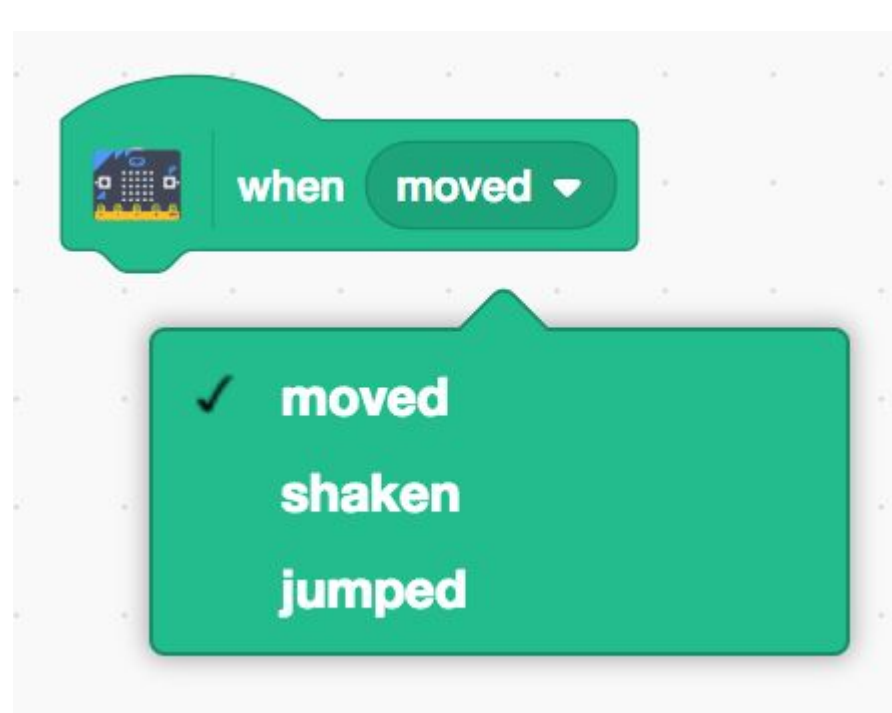
CAN YOU:

- Create a variable for walk/step, jump, shake, tilt?
- Set a timer to keep the user motivated?
- Attach the Micro:bit to yourself in a creative way to trigger the actions?



<https://www.flickr.com/photos/vaneeasab/15302228714>

Blocks you might use:



Direct URL:

<https://beta.scratch.mit.edu/>

Math Story Problem

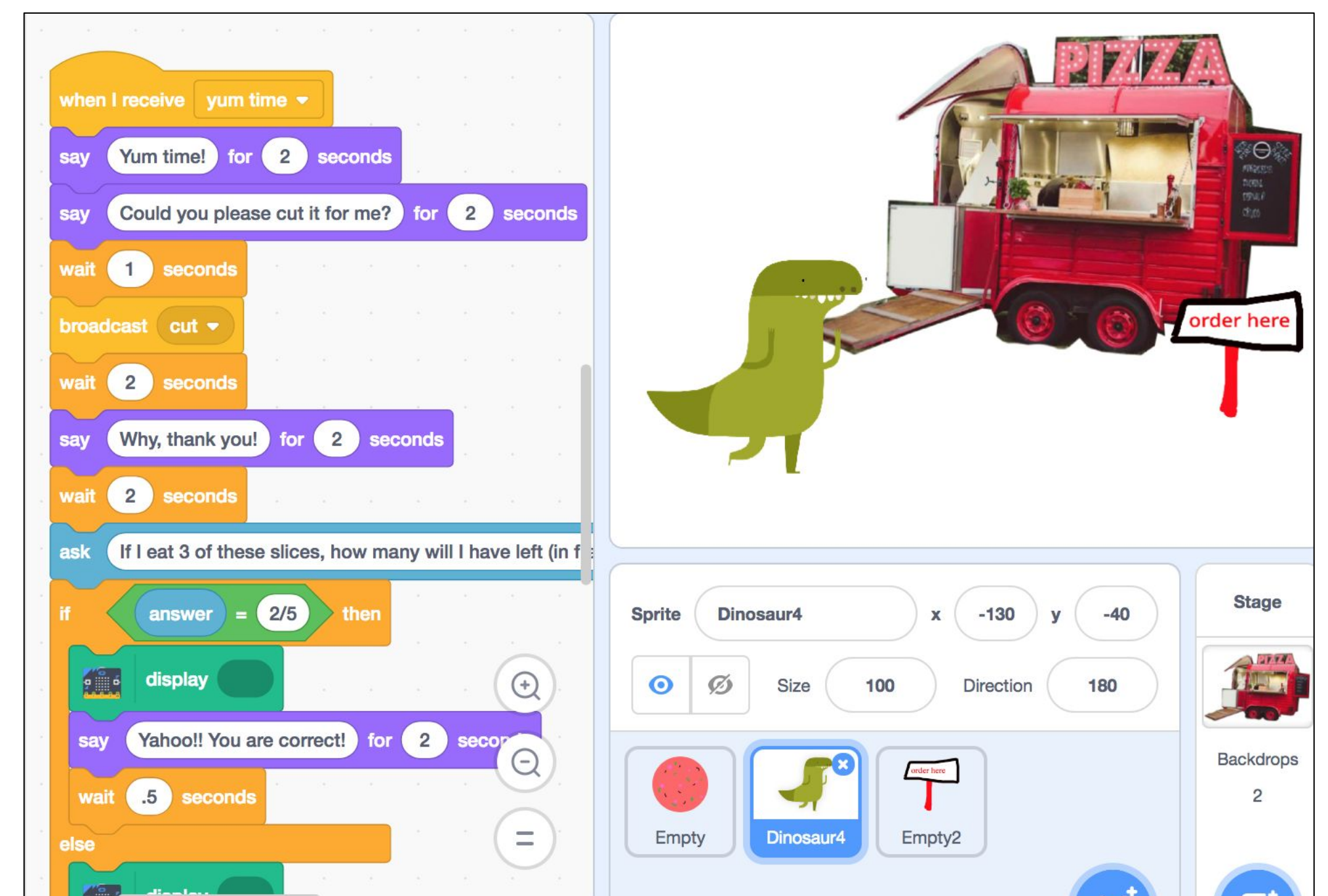
WHAT: Microbit is a pocket-size programmable computer with integrated sensors and LEDs.



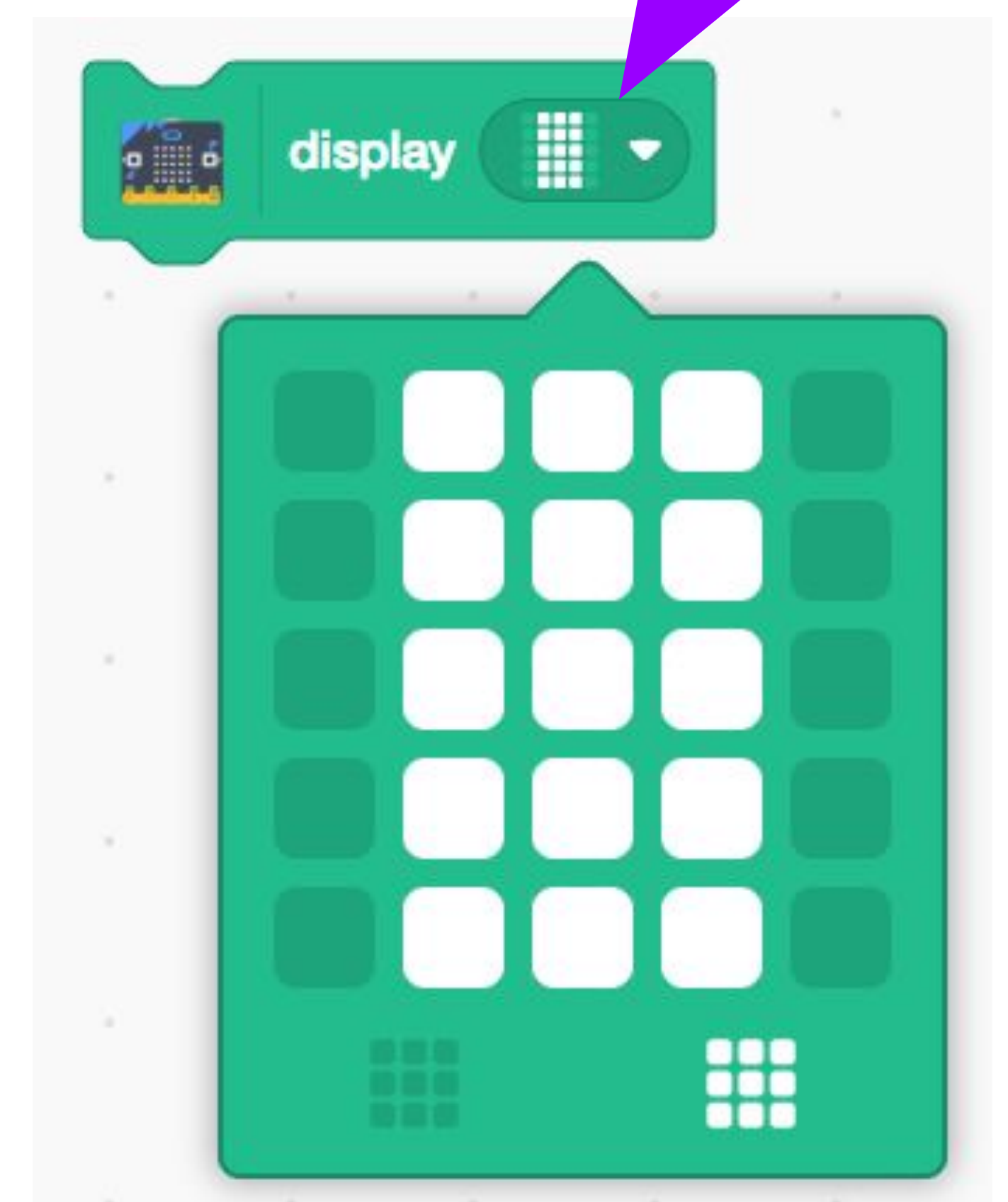
YOUR CHALLENGE: Design your own interactive math story by triggering different actions on the screen with the Micro:bit.

CAN YOU:

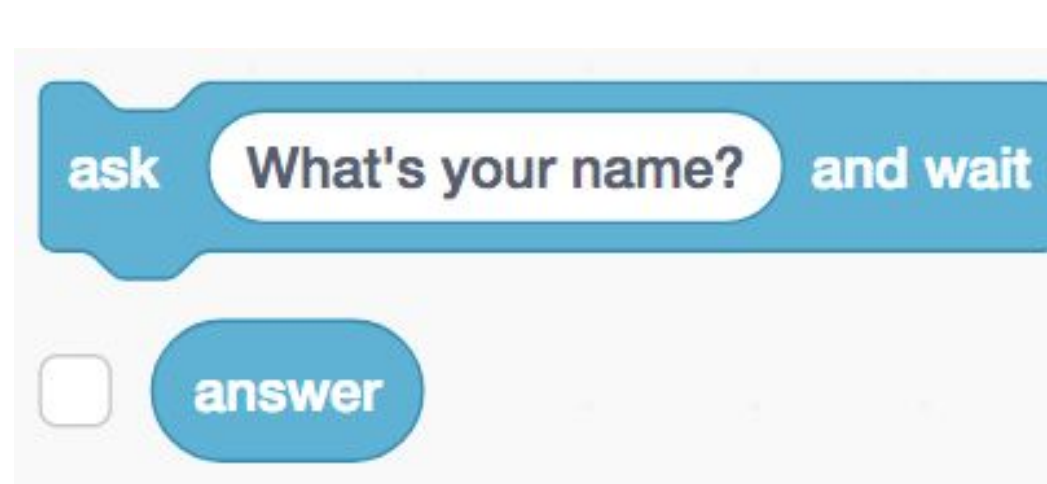
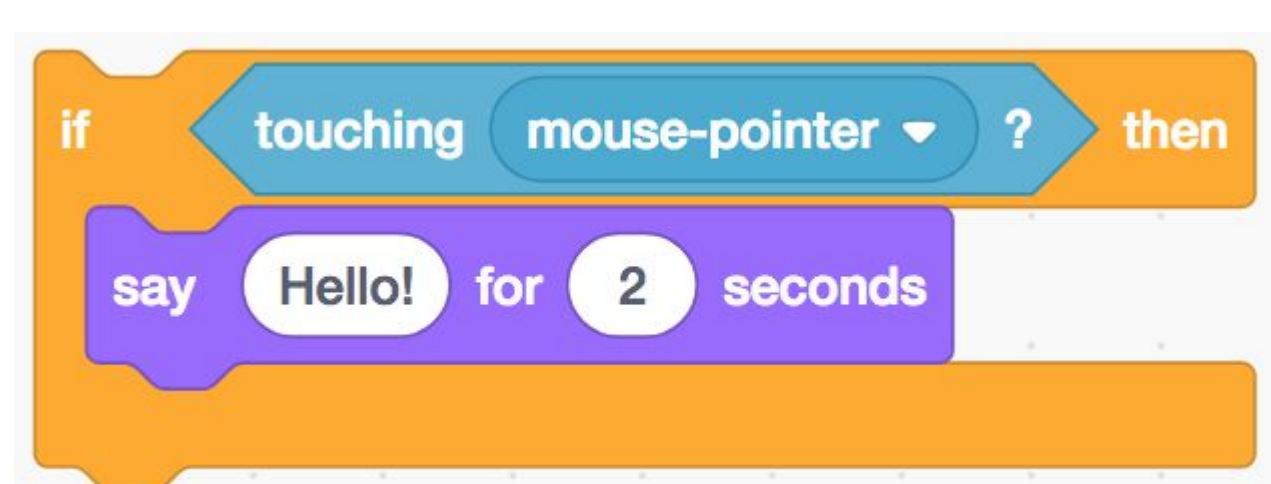
- Create an engaging storyline?
- Have your characters demonstrate a problem? Or have a user solve problems to unlock parts of the story?



How could you use the display to represent 1 fraction in multiple, creative ways?



Blocks you might use:



Direct URL:

<https://beta.scratch.mit.edu/>

Micro:bit Touch Sensors

WHAT: Microbit is a pocket-size programmable computer with integrated sensors and LEDs. A MaKey MaKey is a small microcontroller that lets you turn anything conductive into a keyboard.

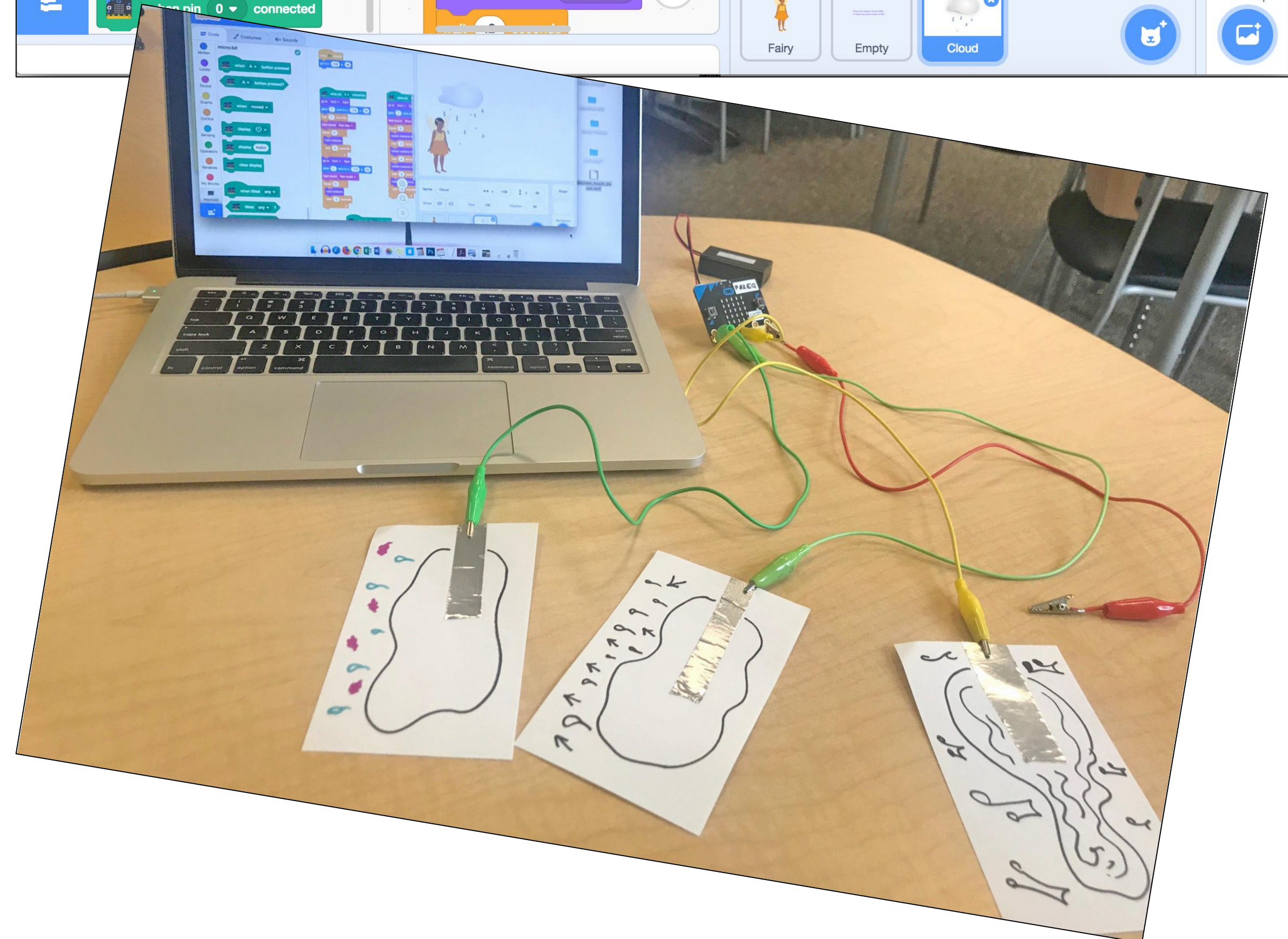


YOUR CHALLENGE:

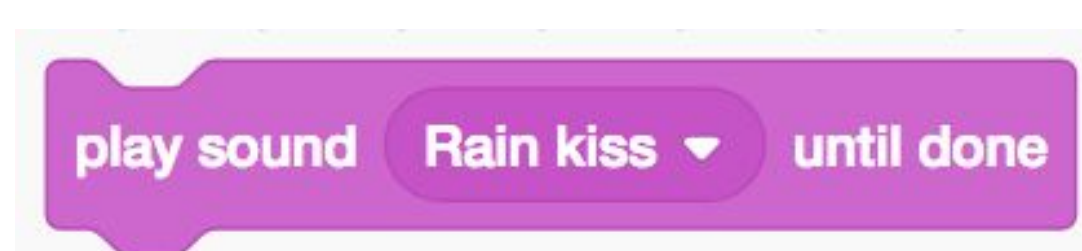
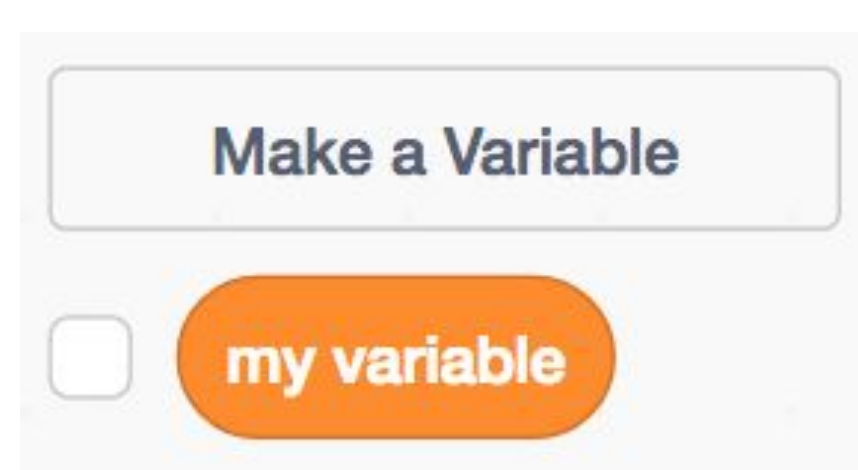
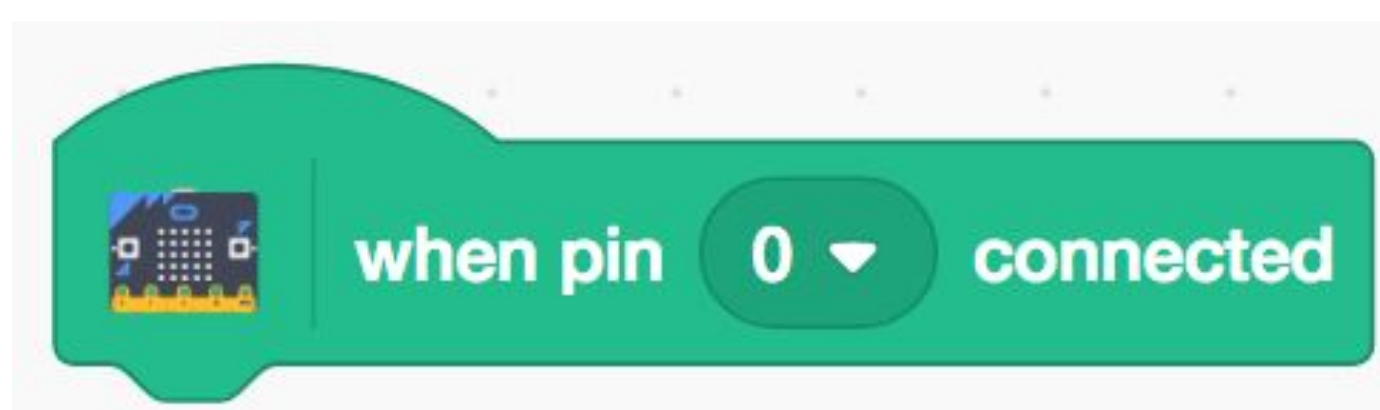
Design an interactive poetry game that uses the Micro:bit touch sensors to trigger your poem.

CAN YOU:

- Represent your poem through text, images, and voice recording?
- Animate your sprites by changing costumes?



Blocks you might use:



Direct URL:

<https://beta.scratch.mit.edu/>

Interactive Lego Challenge

WHAT: Microbit is a pocket-size programmable computer with integrated sensors and LEDs.



YOUR CHALLENGE:

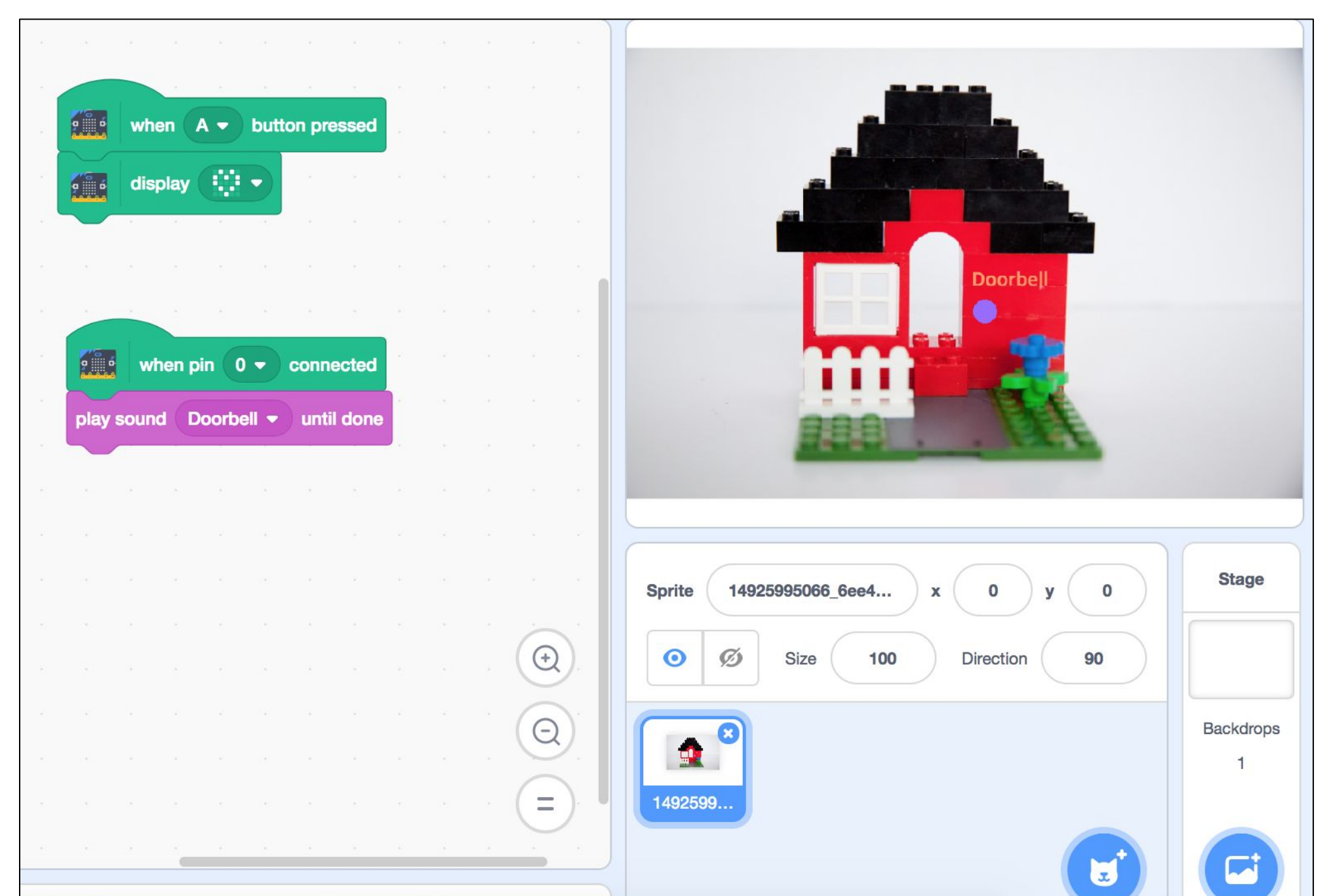
Using Legos, build something that is meaningful to you: your home, school, a park, etc.

CAN YOU:

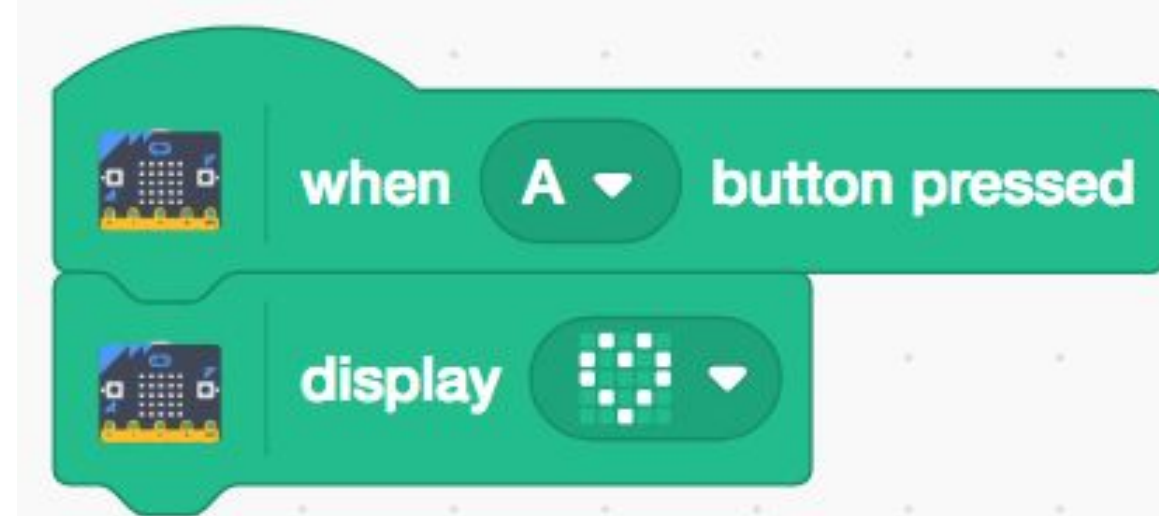
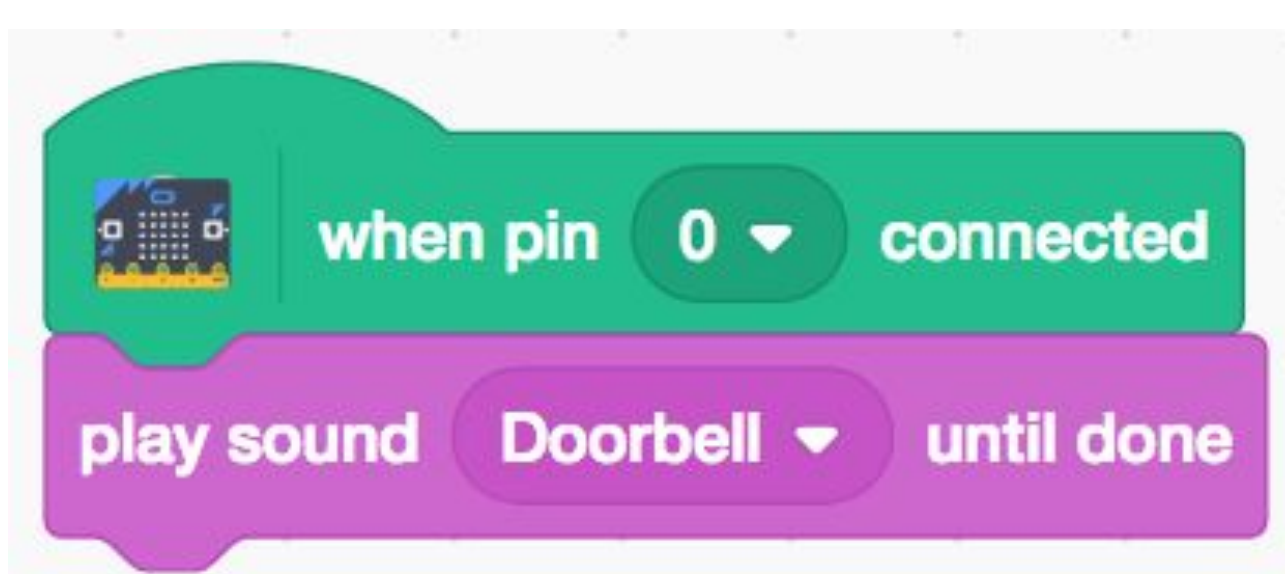
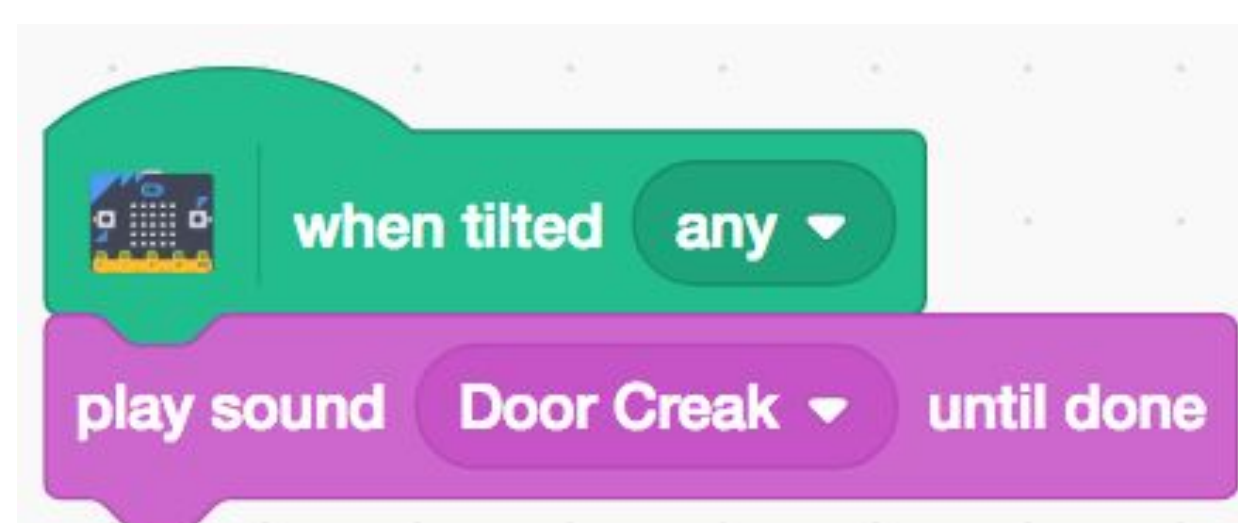
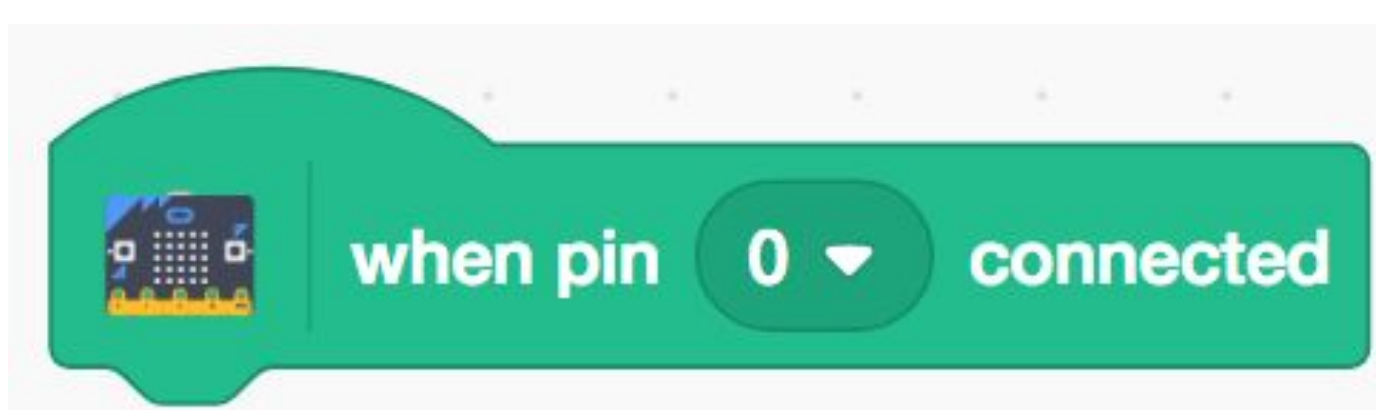
- Integrate the Micro:bit creatively into your design?
- Trigger different actions in the your Scratch project related to this space?
- Light up a gumdrop LED using a resistor and the alligator clips? (hint: look for the steady power source).



<https://make.techwillsaveus.com/bbc-microbit/activities/lego-exploration>



Blocks you might use:



Direct URL:

<https://beta.scratch.mit.edu/>

The Micro:bit:

