Additional micro:bit Challenges

March 2021

Playing with LEDs

Program the micro:bit to turn on an LED when you press the A button and off when you press the B button.

Connect an LED to P0 and another to P1. Click the A button to turn one LED on and the other one off. Program the B button to do the opposite.

Program the micro:bit to turn on two or three LEDS when Button A is pressed and off when Button B is pressed.

Extra credit

Program the micro:bit to make the two LEDs blink together when you press buttons A+B.

Super dooper challenge

Program the micro:bit to make the two LEDs blink alternatingly when you press buttons A+B.

Impossible!

Write a program to turn on an LED when the light level drops and off when the room gets lighter.

Radio Challenges

Program one micro:bit to "pass a message" to another micro:bit, using the radio features, when a user presses a button.

You can't handle this challenge! Party!

Program two more micro:bits to pass messages between each other. (If you have 3 or more micro:bits.)

Roll your die and have it send the value to appear on a friend's micro:bit.

Make the die rolled in your hand make something else happen on a friend's die, like *flash an LED x times* or *display the die face on the receiving micro:bit*.

The sky's the limit!

Program one micro:bit to cause another micro:bit to produce some action, such as light an LED, drive a servo, or run a program on the other micro:bit.

For example, turn on or off LEDs connected to a second micro:bit via radio (see last week's challenges).

I wonder…

- How far can you send messages between micro:bits?
- How might you extend that range using additional micro:bits?
- Can you send a message along a specific route (chain) of micro:bits with specific messages displayed by only one micro:bit?