

BBC micro:bit Challenges

Micro:bit and MakeCode Getting Started Prompts

- 1) Program the micro:bit to display a new image or scrolling text
- 2) Program the micro:bit to display one image when the A button is pressed and a different image when the B button is pressed.
- 3) Program the micro:bit to display the temperature. Test your thermometer.

Super duper gifted and talented extra credit: Display the temperature in Fahrenheit

- 4) Program the micro:bit to display a smiley face when the temperature is above a certain value and sad face when it gets cold.
- 5) 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!

Program two more micro:bits to pass messages between each other.

- 6) 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.

1-hour micro:bit Workshop Challenge

1. Program the micro:bit to behave like a die rolled by a player.
2. Instead of displaying a number, display a die face.
3. Add some effects to make it look (or sound) like rolling a die before it settles on a “side”
4. Roll your die and have it send the value to appear on a friend’s micro:bit.
5. Make the die rolled in your hand make something else happen on a friend’s die, like flash an LED x times.
6. Use your micro:bit die with Scratch to control an animation or interact with a board game you program.

Read more about the thinking behind the design of this activity at <https://inventtolearn.com/1-hour-microbit-workshop-challenges/>

