

# **Morse Texting**

The BBC micro:bit makes Morse Code a cool way of communicating with your friend. You can code the BBC micro:bit with either MakeCode or Python to send the dits and dahs. You send the code just like you would texting, with your thumbs. It uses the built in loudspeaker and for the second project, the antenna and transceiver.



## **About 30 minutes**



## **Kit List**

- 2 BBC micro:bits v2
- Computer
- Copies of the Morse code

#### Instructions

- 1. Connect the BBC Micro:bit to the computer and go to the website https://microbit.org/code/
- 2. You can decide to use the MakeCode editor or Python
- 3. Button A will be for sending a dit and button B for a dah
- 4. For the block 'on button A pressed', drag the block to make a ring tone high C
- 5. You will also need a pause of 100 ms and a 'stop all sounds' block
- 6. Repeat for 'on button B pressed' but use a longer pause of 300 ms



```
on button A ▼ pressed

ring tone (Hz) High C

pause (ms) 100 ▼

stop all sounds

on button B ▼ pressed

ring tone (Hz) High C

pause (ms) 300 ▼

stop all sounds
```

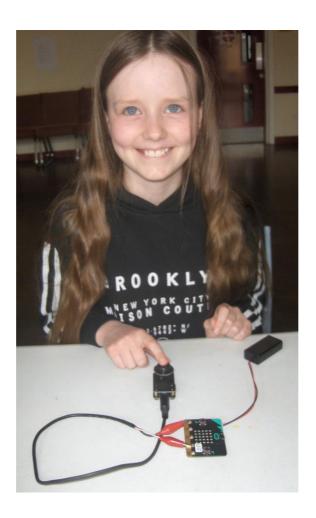
# **Next steps**

- Start by sending a letter at a time to your friend. Easy letters are e, I, and s
- Try sending two letter words, such as 'of' and 'it'





- You need to be within hearing distance of sounds. You can code the Micro:bit using the radio block and be much further away
- Experiment to see how far the signal will travel
- You can play battleships and send the grid square using Morse code



## Find out more

Who was Morse? Why was the code invented? Is it still used today? Morse code was the original binary digital means of communication. Nowadays we use 1 and 0 to send messages.

You can find out more here:

 $\underline{https://longislandcwclub.org/wp-content/uploads/2021/08/p56\_57\_microbit\_radcom\_aug212.pdf}$