Bubble Bomb

Register/login at https://scratch.mit.edu
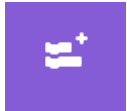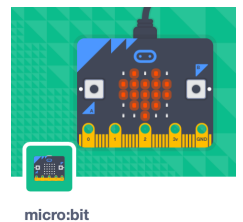Preparation: Requires Scratch Link

Make a bubble-wrap time-bomb. When the micro:bit is thrown from one person to another the timer counts down. Who will catch it when it 'explodes'?

1. Create a new Scratch project and add the **micro:bit** extension.

2. Insert two AAA batteries into the battery pack, plug this into the micro:bit and turn it on at the switch.

3. Click on the micro:bit blocks section. If you see ⚠ at the top then connect the micro:bit.

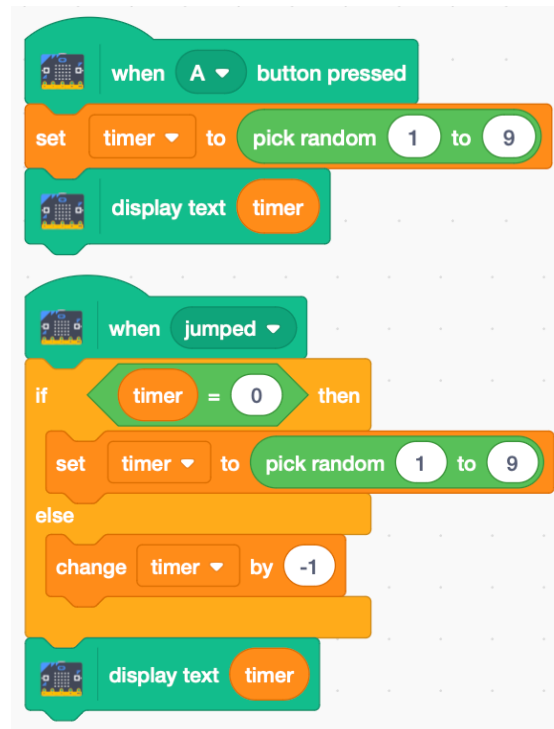4. Create a variable called **timer** for the countdown.

5. Add the code (right) that initialises the **timer** to a random number.

   Try it out by pressing button A.

6. Add the code (right) that detects a jumping motion. The **timer** counts down to zero each time, when it's randomised again.

   Try jumping up and down holding the micro:bit.
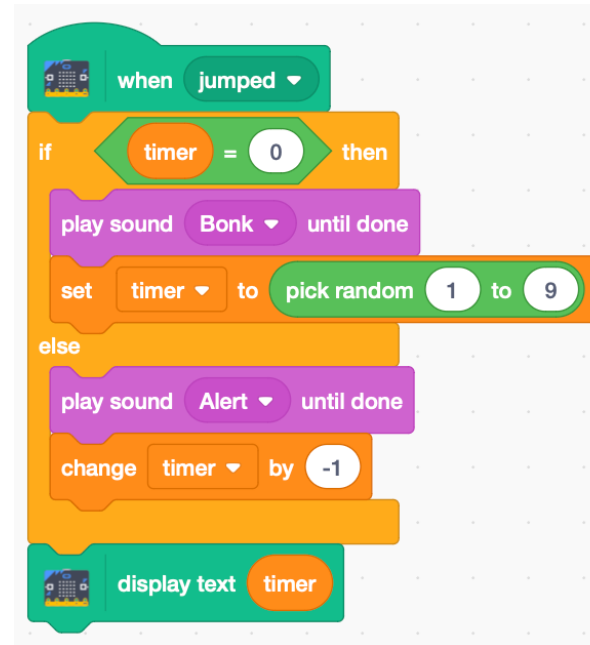   *Does it count down?*

7. Add sounds by selecting the **sounds** tab.

8. Choose a sound for the countdown. I chose the **Alert**.

9. Choose a sound for the explosion. I chose **Bonk**.

10. Modify your code to **Play** these sounds at the right times. See the code (right) for example.

Use bubble wrap to make your bomb safe to throw.

11. Place your micro:bit and battery in a bubble-wrap pouch.

12. Roll it up and stretch an elastic band around it.

Gently throw the bubble bomb to each other. You're out of the game if it 'explodes' when it's thrown to you.

Let a grown-up unplug the batteries – it's not easy!

*Save your code: **File > Save now***

Materials

- *Bubble-wrap pouches*
- *Elastic bands*
- *Micro:bit with battery pack (+2 x AAA batteries)*