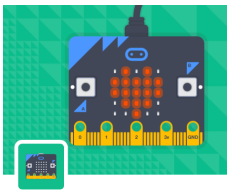
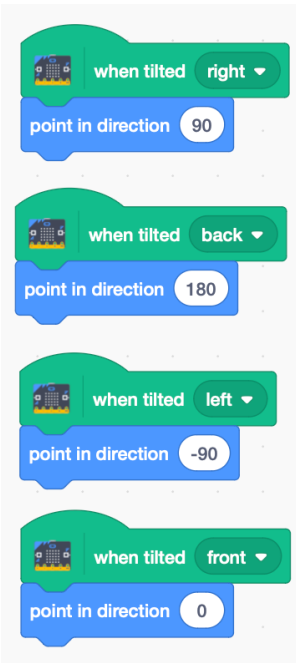
Scratch-Snake

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

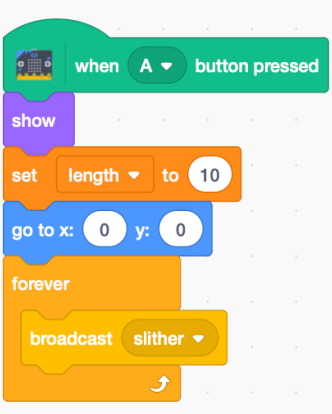


The classic 'Snake' game using the micro:bit tilt sensor. The snake cannot cross itself, and it grows longer when it eats!

1. Create a new Scratch project and add the **micro:bit** extension.
2. Plug the micro:bit into the PC with the USB.
3. Click on the micro:bit blocks section. If you see ! at the top then connect the micro:bit.
4. Download snake graphics from: https://codeclub67.github.io/images/snake.gif
5. Create a new **snake** sprite with **snake.gif**.
6. Duplicate the sprite, and rename it **tail**.
7. Choose the body costume for the **tail**.
8. Add code (right) to the snake head, to change **direction when tilted**.



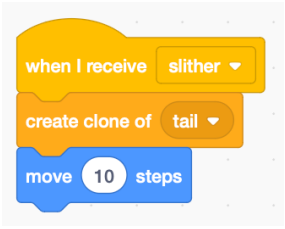
snake code



snake code

9. Add more snake code (left) using button A to start the game.
10. Create a **global** variable **length** (seen by all sprites), initially 10.
11. Broadcast a new message, **slither.**

12. Add **snake** code (right) to receive the message. It grows by **cloning** a **tail** as it **moves**.



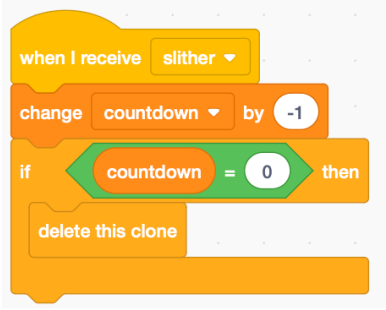
snake code

tail code

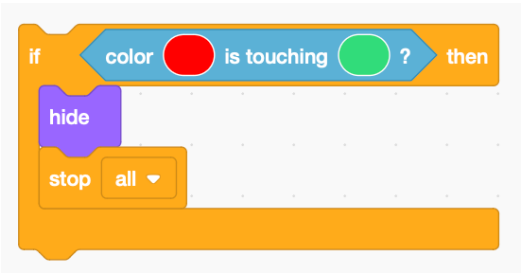
13. Create a countdown variable local to the **tail**.

14. Add **tail** code (left) that initialises **countdown** to **length**, and aligns its position and direction with the head. The tail, initially hidden, is then shown.

15. When the tail receives **slither** (right), it counts down, and deletes itself on zero.



tail code



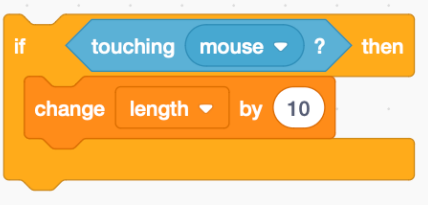
snake code

16. Extend the snake's 'slithering' code (left), ending the game when the snake's red tongue touches the green of its own body.

Use the colour picker to get the right colours.

17. Choose a "mouse" sprite as snake food.

18. Extend the **snake** 'slithering' code again (right), detecting when it **touches** the **mouse**, growing in **length**.



snake code

***Save** your code with a good name.*

File > Save now