



In this unit, we will explore how to control simple circuits using a computer. We will become familiar with the Crumble controller and how it can be used to control Sparkle LED lights motors and other output devices. We will explore how to use repetition and selection, as well as plan and debug our own projects.

Knowledge

- I know how to use logical reasoning to explain how a variety of algorithms work.
- I know how to create programs by decomposing them into smaller parts.

Skills

- CS5.7 I can create programs by decomposing them into smaller parts.
- CS5.8 I can create programs that control or simulate physical systems.
- CS5.9 I can use conditions in repetition commands.
- CS5.10 I can evaluate my work and identify errors.
- CS5.11 I can use selection in programs.
- CS5.12 I can work with variables.

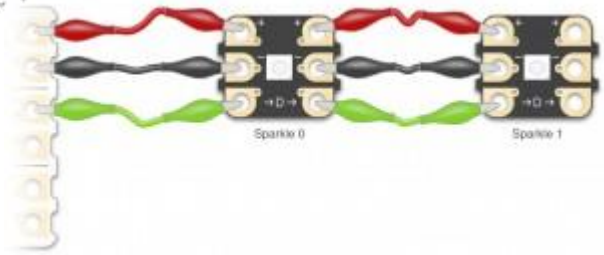
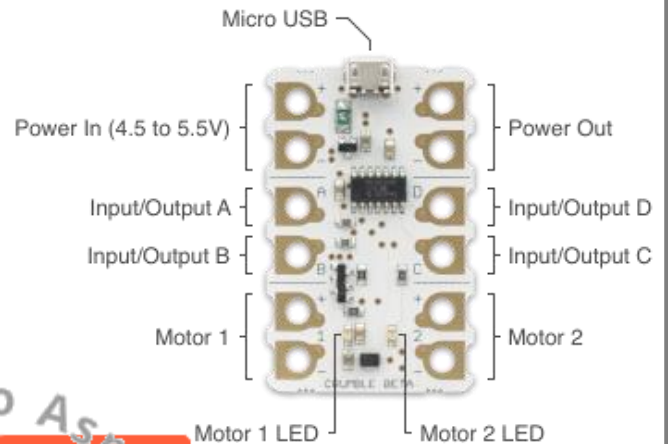
Inspiring Individuals



Ada Lovelace

Ada Lovelace was an English mathematician and writer, chiefly known for her work on Charles Babbage's proposed mechanical general-purpose computer, the Analytical Engine. She was the first to recognise that the machine had applications beyond pure calculation, and to have published the first algorithm intended to be carried out by such a machine. As a result, she is often regarded as the first computer programmer.

Helpful reminders



Vocabulary

Microcontroller, Crumble controller, components, LED, Sparkle, crocodile clips, connect, battery box, program, repetition, infinite loop, output devices, motor, count-controlled loop, switch, condition, true, false, input, selection, action, task, design, algorithm, program, debug, evaluate

