

# Construction

## Prior Knowledge

**Year 1** – Create an algorithm that with a given command can control and move a robot.

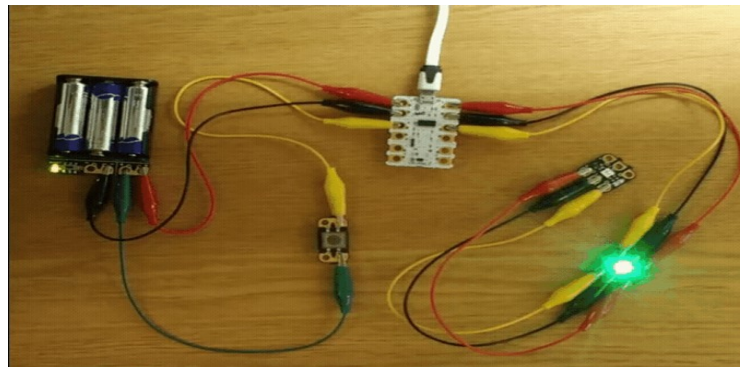
**Year 2** - Describe a series of instructions as part of a sequence and identify where an algorithm is wrong.

**Year 3** – Exploring new programming environments to identify commands that lead to an outcome.

**Year 4** – Identify the importance of accuracy in programming a design.

## Future Knowledge

**Year 6**— Define a variable and explain its use in a program.



## My Component Knowledge:

**Lesson 1:** I can create a simple circuit to connect a microcontroller.

**Lesson 2:** I can design sequences that use count-controlled loops.

**Lesson 3:** I can explain if a condition is true or false.

**Lesson 4:** I can identify a condition and an action.

**Lesson 5:** I can design a project that includes selection.

**Lesson 6:** I can write an algorithm that describes my model.

## My Composite Knowledge:

I can write and debug programs that accomplish specific goals, including controlling or simulating physical systems and solve problems.

## My Powerful Knowledge:

I can select, use and combine a variety of software on a range of digital devices to design and create a range of programs.

## Key Vocabulary

**Tier 1:** controller, LED, task, design, action, evaluate, battery box

**Tier 2:** crumble, components, sparkle, crocodile clips, program, repetition, selection, condition

**Tier 3:** microcontroller, infinite loop, debug

## program start



What is an algorithm?

“What do you think the term ‘microcontroller’ could mean?”

