

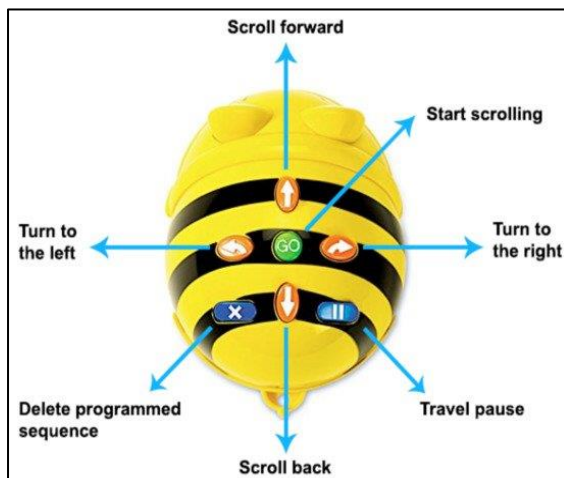


Topic:

Robot Algorithms Cycle A Spring Term 2 Y1/2

New Vocabulary

Robot	A type of machine that can follow a program.
Algorithm	A list of step-by-step instructions to follow in order to complete a task or solve a problem.
Debugging	Sometimes, there can be a problem in a program. It did not do what we wanted. Fixing a program is called debugging.



Did you know ...

Robots have a computer inside?
Computers and robots can only do what we tell them to do?
Sometimes there are problems with the programs we put onto the robots? It's not the robot misbehaving.



Career links

The computers and devices we use every day have a set of programs to make them work. These programs are made by people called **computer programmers**. Sometimes they are called **coders**.

New Knowledge

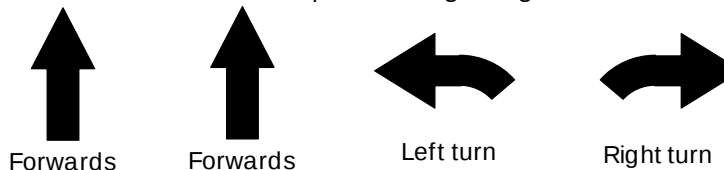
Programming is when we make a set of instructions for computers to follow. Robots do what we want because they follow instructions. They do not make any choices themselves.

An example of this is an algorithm. We use algorithms to tell robots what we want them to do.

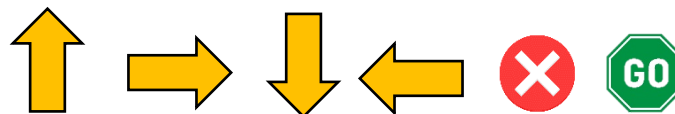
The steps in an algorithm need to be in the right order. We can think of every day examples, like putting on your jumper before your coat!

Using a floor robot and designing algorithms

We can create different sequences using a range of instructions:



We can think about and follow a set of instructions.
We can program different routes for the robot to follow.
We can create algorithms that will make the robot complete our planned route.
We can test and debug our programs if we need to.



Prior Learning

In Early Years:

Pupils used BeeBots in the provision, describing their buttons and movements.

They used a range of technology for a purpose such as iPads, pulley toys, BeeBots, the interactive whiteboard, a laptop, toys such as washing machines, video cameras, tills etc.

Helpful hint

Remember to clear any programs on the robot before you start to enter your program.