

Year: 2

Term: Spring 1

Topic: Programming - Moving a Robot

St Dennis Primary Academy

"Everyone matters, everyone succeeds, every moment counts"



Programming is when we make a set of instructions for computers to follow.

Robots are one type of machine that can follow programs. Floor robots include Bee-bots.

Floor robots have buttons which help us to direct them. We can use **algorithms** (a set of instructions) to program floor robots along routes

We use **algorithms** (a set of instructions to perform a task) to help robots to do things that we want them to. **Debugging** can help to correct algorithms and programs.

Bee-bots are a type of floor robot. We can **programme** Bee-bots to move around.

To turn it on, use the switch underneath. You can tell that the Bee-bot is on because its eyes light up.

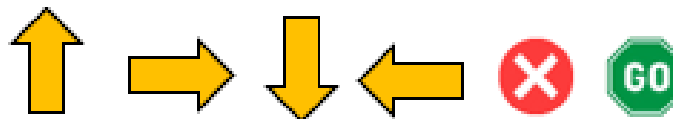


Bee-bots have **buttons** on the top. They each make the Beebot do something different,

The **arrows** move the Bee-bot in different directions.

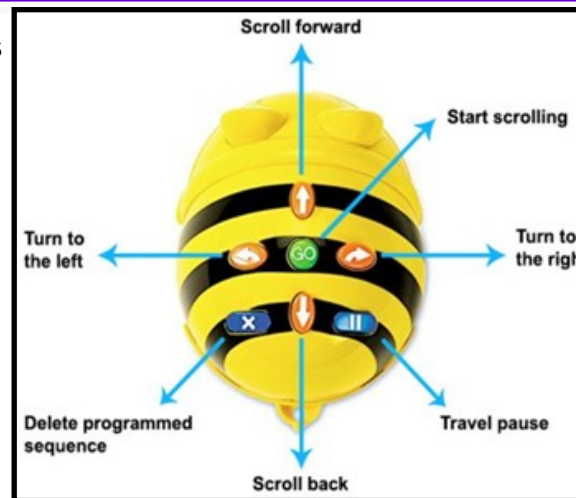
The **GO** button makes the Bee-bot start its program.

An **algorithm** is a series of instructions. We can program the Bee-bot by pressing the direction buttons (in order) that we want it to move in, followed by **GO**.



The **X button** makes the Bee-bot delete the program and make a new program. Switching the Bee-bot off and on again also deletes the program.

With larger programs, we can break the task into chunks and create algorithms for each **chunk**.



Glossary

algorithm A set of instructions to perform a task.

command A single instruction that can be used in a program to control a computer or robot.

directions The way in which we face.

program A set of ordered commands that can be run by a computer to complete a task

route The course that we travel to get somewhere.

Debugging:: Debugging is finding and fixing errors in our algorithms and programs. These errors can include:

Sequence errors:: An instruction in the sequence is wrong or in the wrong place.

Keying errors:: Typing in the wrong code.

Logical errors:: Mistakes in plan/thinking.