

# Sequence and animation

## What is a sequence?

A **sequence** is a set of actions that happen in a particular order. You can program a sequence by putting blocks of code together in the order that you would like them to happen.

## What you'll build

In *Level 3 - Sequence and animation*, you'll program sequences to create simple animations and simulations. You'll decide what should happen first, what happens last, and the order of everything in between!



Code a sequence of commands to fly a rocket through space.



Create an animated scene by coding more than one sequence.



Use the timer event to control your sequence and build a race in space.



Combine timer events to program a set of traffic lights.

## Your blocks

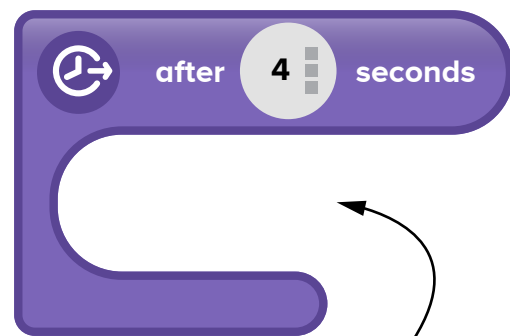
Placing the blocks in a chain creates a sequence.



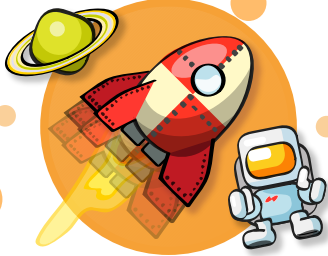
You can control the timing of a sequence by using:



A **wait** block, to add a pause anywhere within the sequence



A **timer event** block, to control when the sequence begins



# Sequence and animation



## Match each term to its meaning

**Wait**

This code will execute the sequence a specified time after running the program.

**Action**

This action will pause an object for a specified time.

**Timer event**

To place programming instructions in order, each executed one after the other.

**Sequence**

Something that an object does, such as move or hide.



## Free Code Challenge

Use the free code area to practise using sequences in your code. First, add a character to your screen. Next, choose four things for them to do (e.g. pick a flower, play with a ball, eat a sandwich, go home). Add or draw objects to represent these events, and decide which order your character will do them in. Finally, use your coding skills to make this happen! Once you have written and tested your code, try changing it to make the actions happen in a different order.

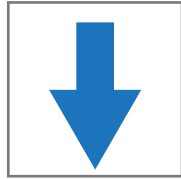
# Crane game



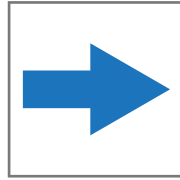
Copy the commands into a sequence that will program the crane to move the car in to bay number 3. You will need to use some commands more than once.



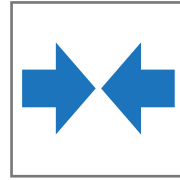
Up



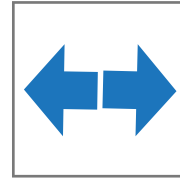
Down



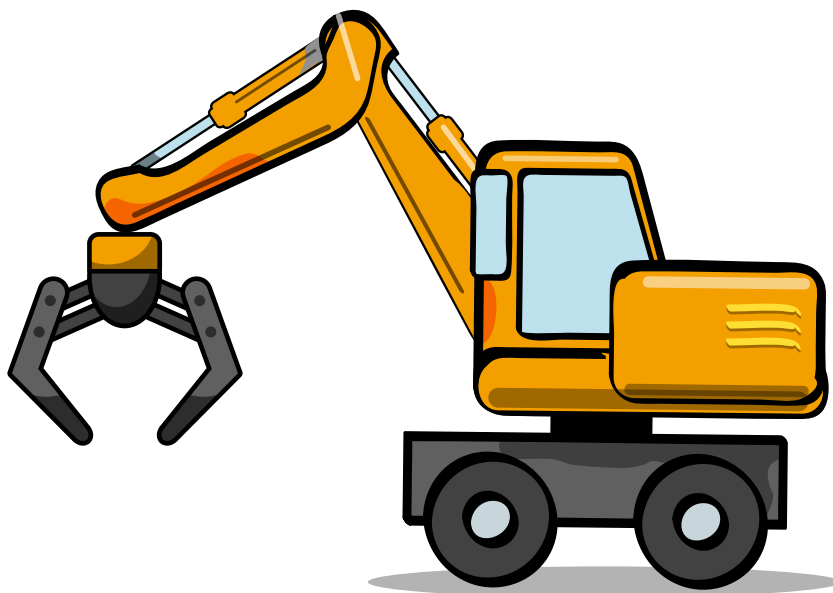
Move 1 space right



Close claw



Open claw



1

2

3

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