

UNDERSEA EXPLORER

Engineers write programs for robots to explore the ocean depths.

Robots can't do anything without a precise set of INSTRUCTIONS, known as a PROGRAM.

COMMANDS in a program tell a robot to do one thing...

Speed up

Turn left

Pick up object

Using the command symbols given, can you program the robot below to swim to the shells in this sea cave?

COMMANDS



Swim one square forward



Make a quarter turn downwards

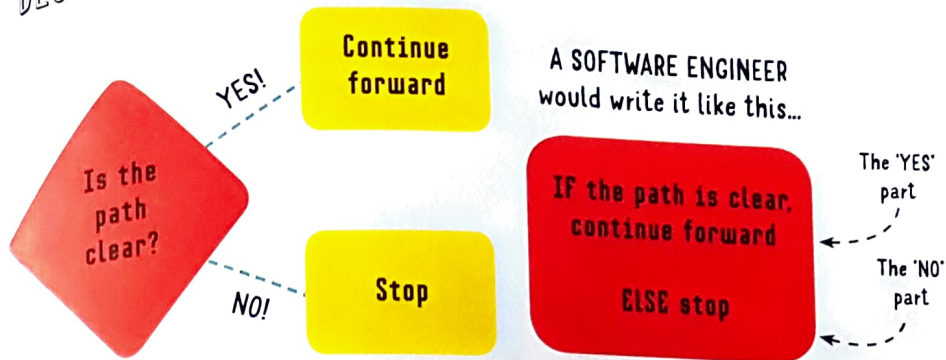


Make a quarter turn upwards

PROGRAM:

10 empty boxes for writing a program.

DECISIONS ask a robot a YES/NO question.



A SOFTWARE ENGINEER would write it like this...

IF the path is clear, continue forward
ELSE stop

Scribble your own shell, then fill in the DECISIONS in the yellow boxes below to help the robot identify and collect it from the cave.

For example...

IF the shell is white, collect it
ELSE leave it

This will make the robot collect only WHITE shells.



COLOUR

If the shell is

collect it

Else leave it

TEXTURE

If the shell is

collect it

Else leave it

SHAPE

If the shell is

collect it

Else leave it