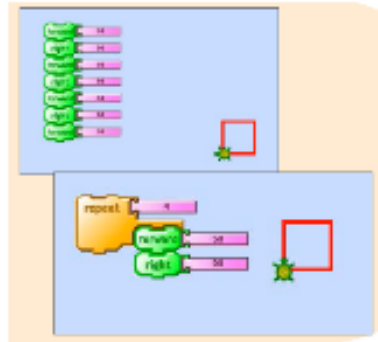


Key Vocabulary
program
debug
sequence
repeat
angle
degrees
decompose
algorithms
error
forward
back
left
right
virtual
robot
statement
execute



*This is the TurtleArt program.*

### I-Write

- Use logical reasoning to explain how a simple algorithm works and detect and correct any errors in algorithms and programs. You use code to tell a computer what to do. Before you write code you need an **algorithm**. An algorithm is a list of rules to follow in order to solve a problem. Algorithms need to have their steps in the right order.

### i-Draw

- Design, write and debug programs. Debugging** means finding and resolving problems within a computer program. It's a bit like changing an instructions that doesn't work or make sense.
- Use sequence, selection and repetition in programs. Programs** are a sequence of statements written in a programming language. We will be using (TurtleArt). TurtleArt is an example of a program written in programming language.
- We will be programming a turtle to **execute** a sequence of statements. **Execute** means that the turtle will perform the programming instructions correctly and without any **errors**.

### I-Design

- You are going to design a program that make choices.
- Commands and actions can be programmed to be executed depending whether a condition is true or not. For example, we program a turtle to pick something up if It is in front of the turtle.

### I-Follow

```

repeat ()
{
  forward(1)

  if (frontiswhite)
  {
    forward(1)
    right
  }

  else if (frontisBeacon)
  {
    pickup
    break
  }
}
    
```

You will program a **virtual robot** to follow markers on a map and retrieve an object. **Virtual** means that the object only exists as a software program. It isn't real.