



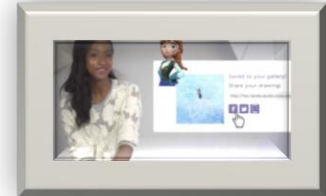
Block based programming



<http://static.studio.code.org/>

1- The basics of how to code

Traditional programming is usually in text, but we'll use Blockly, which uses visual blocks that you can drag and drop to write programs.



Your screen is split into three main parts:

The screenshot shows the Code.org Studio interface. On the left is the workspace with a snowflake character and a text box that says "Where the program will be run". In the center is the "Blocks" palette containing various code blocks like "move forward by 100 pixels", "turn right by 45 degrees", "repeat 3 times", "create a snowflake branch", and "set color". On the right is the "Assemble your blocks here: 4 / 6" area, which shows a visual representation of the code blocks being assembled. A trash icon is also visible in the top right corner.

1- Drawing snow flakes

Go on the website: <http://static.studio.code.org/> and complete the puzzles. For some of them, you'll have to complete the following code (JavaScript).

<p>Puzzle 2</p> <pre> moveForward(); turnRight(); moveForward(); </pre>	<p>Puzzle 4</p> <pre> for (var count = ; count < ; count++) { moveForward(); turnRight(); } </pre>	<p>Puzzle 5</p> <pre> for (var count2 = ; count 2 < ; count2++) { for (var count = ; coun t < ; count++) { moveForward(); turnRight(); } turnRight(); } </pre>
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Block based programming



Puzzle 7

```
for (var count = ; count  
< ; count++) {  
  moveForward();  
  moveBackward();  
  turnRight();  
}
```

Puzzle 9

```
for (var count = ; count  
< ; count++) {  
  penColour(colour_random());  
  ;  
  moveForward();  
  moveBackward();  
  turnRight();  
}
```

Puzzle 12

```
for (var count2 = ; count  
2 < ; count2++) {  
  for (var count = ; coun  
t < ; count++) {  
    moveForward();  
    turnRight();  
    moveForward();  
    turnRight();  
  }  
  turnRight();  
}
```

Puzzle 14

```
for (var count2 = ; count  
2 < ; count2++) {  
  penColour(colour_random());  
  ;  
  // create_a_circle  
  for (var count = ; cou  
nt < ; count++) {  
    moveForward();  
    turnRight();  
  }  
  jumpForward();  
}
```

Puzzle 17

```
for (var count3 = ; count  
3 < ; count3++) {  
  // create_a_circle  
  for (var count = 0; count  
< 36; count++) {  
    moveForward();  
    turnRight(10);  
  }  
  // create_a_circle  
  for (var count2 = 0; count  
2 < 36; count2++) {  
    moveForward();  
    turnRight(10);  
  }  
  turnRight();  
}
```

Puzzle 19

```
for (var count3 = ; coun  
t3 < ; count3++) {  
  // create_a_snowflake_branch  
  jumpForward(90);  
  turnLeft(45);  
  for (var count = 0; count  
< 3; count++) {  
    for (var count2 = 0; cou  
nt2 < 3; count2++) {  
      moveForward(30);  
      moveBackward(30);  
      turnRight(45);  
    }  
    turnLeft(90);  
    moveBackward(30);  
    turnLeft(45);  
  }  
  turnRight(45);  
  turnRight(45);  
}
```