

Syntax Guide 1.1

Turtle color (Turtle specific)

The color of the turtle is the *string* type. For now, all you need to know is that a *string* is something between quotation marks. The turtle color can be any color like “red”, “green”, or “gold”.

```
turtle.color("blue")
```

Moving and Turning (Turtle specific)

Forward and backward, moves the turtle straightforward or straight backward in the direction it's facing. Input the distance to travel, in pixels. By default, the turtle also draws a line behind it. Right and left, turns the turtle by rotating right or left a specific number of degrees.

```
turtle.forward(50)
turtle.right(180)
turtle.backward(75)
turtle.left(45)
```

Strings (All programming languages have strings)

A string is a type in many programming languages that is simply a sequence of characters.

```
"Anything within quotation marks is a string"
```

Ints (All programming languages have ints)

An int or integer is a type in many programming languages that is simply a number.

```
50
```

For loops (Most programming languages have for loops)

A for loop is a way to tell the program to repeat certain code a certain number of times. The following code will tell loopy to move forward by 50 pixels, 5 times.

```
for x in range(5):
    loopy.forward(50)
```

While loops (Most programming languages have while loops)

A while loop is a way to tell the program to repeat certain code until some condition is false. The following code does the same thing that the for loop example above does - only with more lines, as you can see.

```
x = 1
```

```
while x < 5:  
    loopy.forward(50)  
    x = x + 1
```

In our example in 1.1, we had something like this:

```
while true:  
    loopy.forward(50)
```

Since the statement “true” will obviously never be false, this loop runs forever (the program will tell loopy to move forward 50 pixels forever).

Table of Shapes

Shape name	Number of sides	Number of degrees to turn
Triangle	3	120
Square	4	90
Hexagon	6	60
Octagon	8	45

