

07-Python-Drawing-and-Loops

Drawing and Loops

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Turtles!

Turtle is a library that helps us visually interact with Python code.

To draw on the screen with the turtle library, we need to create turtles first.

Turtle Boilerplate

Boilerplate is code that is frequently copied and pasted. Its general use is to set up an environment.

```
import turtle

wn = turtle.Screen() # Set up the window and its attributes
wn.bgcolor("lightgreen")

# TMNT - turtles

wn.exitonclick()
```

Creating Turtles

The names of the Teenage Mutant Ninja Turtles
Blue bandana - Leonardo (leo)
Red bandana - Raphael (raph)
Purple bandana - Donatello (donnie)
Orange bandana - Michaelangelo (mikey)

To draw on the screen, we need to create **turtle objects**.

to create a turtle, we can do the following.

```
# create a turtle called mikey
mikey = turtle.Turtle()
```

Functions and Turtles

Loops/Literation

- **literation** is a word that means repetition.
If we ever want to repeat a code we can use a couple of methods.
- When we know **how many times we want repeat something** we use for loops.

```
## print "Hello" 10 times
for _ in range(10)
print("Hello")

# example of a loop is a 'counter'
for counter in range(100)
print(counter).      #0,1,2, ...,99
```