

Turtle within Python: Basic commands

Magic lines at the beginning

```
import turtle          #  
t = turtle.Turtle()    # t is the name of our turtle; one can create  
                        many turtles simultaneously (with different names)
```

One can write the following *last* code line

```
turtle.mainloop()      # to keep the window on the screen
```

Commands

main

t.forward(distance) :	go forward on <code>distance</code> pixels;
t.backward(distance) :	go backward on <code>distance</code> pixels;
t.right(angle) :	Turn right on <code>angle</code> degrees;
t.left(angle) :	Turn left on <code>angle</code> degrees;
t.pendown() :	Start drawing
t.penup() :	Stop drawing

motion

t.setx(x)	Set the <i>x</i> -coordinate of the turtle;
t.sety(y)	Set the <i>y</i> -coordinate of the turtle;
t.setheading(to_angle)	Turn the turtle to angle <code>to_angle</code> to the vertical (0 upward, 90 to the right);
t.home()	Return the turtle home (to the point with the coordinate (0,0));
t.circle(radius)	Draw a circle of the radius $ r $ with center located to the left from the turtle if $r > 0$ and to the right if $r < 0$;
t.dot(size, color)	Draw a dot of diameter <code>size</code> and color <code>color</code> . The parameter <code>color</code> is optional;
t.undo()	Undo the previous action of the turtle;