# Turtle

**python**

## Moving Turtle

| | |
|---|---|
| **import turtle** | Import the turtle library |
| t = **turtle.Pen**() | Create a new turtle called t |
| t.**forward** ( yyy ) | Move the turtle forward yyy |
| t.**backward** ( yyy ) | Move the turtle backwards yyy |
| t.**left** ( yyy ) | Turn the turtle yyy degrees to the left |
| t.**right** ( yyy ) | Turn the turtle yyy degrees to the right |
| t.**setheading** ( yyy ) | Make the turtle point in the specified direction |

### Headings

| |
|---|
| 0 = East |
| 90 = North |
| 180 = West |
| 270 = South |

## Changing Turtle

| | |
|---|---|
| t.**pencolor** ( "red" ) | Set the line colour to be "red" |
| t.**fillcolor** ( "green" ) | Set fill colour to be "green" |
| t.**pensize** ( yy ) | Set the width of the lines |
| t.**begin_fill** ( ) | Start filling a shape |
| t.**end_fill** ( ) | Stop filling a shape |
| t.**showturtle** ( ) | Show the turtle |
| t.**hideturtle** ( ) | Hide the turtle |
| t.**shape** ( "turtle" ) | Change the turtle's costume (shape) |
| t.**shapesize** ( yy ) | Change the size of the turtle costume |

### Turtle Shapes

| |
|---|
| arrow |
| turtle |
| circle |
| square |
| triangle |
| classic |

## Turtle Functions

| | |
|---|---|
| t.**circle** ( yy ) | Draw a circle, of size yy, to the left of the turtle |
| t.**dot** ( yy,"orange" ) | Draw a dot of size yy at the current position |
| t.**stamp** ( ) | 'Stamp' a copy of turtle at the current position |
| t.**write** ( "words" ) | Write the words at the current position |

### Colours

| |
|---|
| Red |
| Pink |
| Orange |
| Green |
| Blue |
| Cyan |

## Positioning Turtle

| | |
|---|---|
| t.**penup** ( ) | Stop the turtle from drawing |
| t.**pendown** ( ) | Start the turtle drawing again |
| t.**speed** ( yy ) | Set the speed of the turtle |
| t.**goto** ( x, y ) | Send the turtle to the coordinates x/y |
| t.**home** ( ) | Send the turtle home (the centre) |
| t.**setx** ( x ) | Change the turtle's x coordinate |
| t.**sety** ( y ) | Change the turtle's y coordinate |

| |
|---|
| Yellow |
| Gold |
| Purple |
| Navy |
| Olive |
| Salmon |
| PeachPuff |
| Lavender |
| Magenta |

## Turtle's World

| | |
|---|---|
| screen = t.**getscreen** ( ) | Get the screen |
| screen.**bgcolor** ( "red" ) | Change the colour of the screen |
| screen.**exitonclick** ( ) | Set the screen to close when clicked |
| screen.**title** ( "Title Here" ) | Give the window a title |

| |
|---|
| Black |
| White |
| Gray |