



# Complete List of TURTLE Commands

## 1. Basic Movement & Drawing

Function	Description
<code>forward(distance) fd(distance)</code>	Moves the turtle forward by a specified distance
<code>backward(distance) bk(distance)</code>	Moves the turtle backward by a specified distance
<code>right(angle) rt(angle)</code>	Rotates the turtle clockwise by a given angle (degrees)
<code>left(angle) lt(angle)</code>	Rotates the turtle counterclockwise by a given angle
<code>goto(x, y)</code>	Moves the turtle to a specific coordinate
<code>setx(x)</code>	Moves the turtle to a specific x-coordinate
<code>sety(y)</code>	Moves the turtle to a specific y-coordinate
<code>setpos(x, y) setposition(x, y)</code>	Moves the turtle to (x, y)
<code>home()</code>	Moves the turtle back to the origin (0,0)
<code>circle(radius, extent=None, steps=None)</code>	Draws a circle or arc with a given radius
<code>dot(size=None, color=None)</code>	Draws a filled dot at the turtle's position

## 2. Pen Control

Function	Description
<code>penup() pu()</code>	Lifts the pen so the turtle moves without drawing
<code>pendown() pd()</code>	Lowers the pen so the turtle moves and draws
<code>pensize(width) width(width)</code>	Sets the thickness of the turtle's pen
<code>pencolor(colour)</code>	Changes the pen colour
<code>fillcolor(colour)</code>	Sets the fill colour for shapes
<code>begin_fill()</code>	Starts filling a shape
<code>end_fill()</code>	Stops filling a shape and fills it with the set fillcolor



### 3. Turtle Appearance

Function	Description
<code>shape (name)</code>	Sets the turtle shape ("arrow", "turtle", "circle", "square", "triangle", "classic")
<code>shapeseize(stretch_wid, stretch_len, outline)</code>	Resizes the turtle
<code>speed (speed)</code>	Sets the turtle speed (1-10 or "slow", "normal", "fast", "fastest")
<code>hideturtle()</code> <code>ht()</code>	Hides the turtle
<code>showturtle()</code> <code>st()</code>	Shows the turtle

### 4. Screen & Window Control

Function	Description
<code>Screen()</code>	Creates a turtle screen object
<code>bgcolor (colour)</code>	Sets the background colour of the screen
<code>title (title)</code>	Sets the window title
<code>clear()</code>	Clears the turtle drawings without resetting position
<code>reset()</code>	Clears everything and resets the turtle to default position
<code>bye()</code>	Closes the turtle graphics window

### 5. Event Handling

Function	Description
<code>onclick(function, btn=1, add=False)</code>	Calls a function when the turtle is clicked
<code>onscreenclick(function, btn=1, add=False)</code>	Calls a function when the screen is clicked
<code>onkey(function, key)</code>	Calls a function when a key is pressed
<code>listen()</code>	Enables keyboard event listening



## 6. Getting Information

Function	Description
<code>pos()</code>	Returns the current position of the turtle as (x, y)
<code>xcor()</code>	Returns the current x-coordinate
<code>ycor()</code>	Returns the current y-coordinate
<code>heading()</code>	Returns the current turtle direction (angle)
<code>distance(x, y)</code>	Returns the distance from the current position to (x, y)

## 7. Miscellaneous

Function	Description
<code>tracer(n, delay)</code>	Controls animation speed (0 for instant drawing)
<code>update()</code>	Updates the screen (useful when <code>tracer(0)</code> )
<code>delay(milliseconds)</code>	Sets the delay between turtle actions

