

| Turtle Pen | |
|-----------------------------------|---|
| up() | Sets the pen state to be up (not drawing). |
| down() | Sets the pen state to be down (drawing). |
| color(r,g,b) | See below |
| color(s) | Sets the color that the pen will draw until the color is changed. It takes either <ol style="list-style-type: none"> three arguments, each a floating point number between 0.0 — 1.0, where the first the amount of red, the second is the amount of green, and the third is the amount of blue a "color string" the name of a TK color (e.g., "black", "red", "blue", ...) |
| begin_fill() | See below |
| end_fill() | To fill a figure, use begin_fill() before you start drawing the figure. Draw the figure. Then execute end_fill(). The figure drawn between the two fill commands will be filled with the present color setting. |
| hideturtle() | See below |
| showturtle() | Sets the state to hide / show the When shown, you see it as a small arrowhead pointed in the direction of the heading. |
| The default pen color is "black". | |
| Turtle other | |
| xcor(), ycor() | Returns the x - coordinate / y - coordinate of the current pen position. |
| bye() | Close the turtle drawing window |

| Turtle Draw | |
|--------------------|--|
| right(degrees) | Turns the direction that the turtle is facing right (clockwise) by the amount indicated (in degrees). |
| left(degrees) | Turns the direction that the turtle is facing left (counter clockwise) by the amount indicated (in degrees). |
| forward(distance) | Moves the turtle forward (in the direction the turtle is facing) the distance indicated (in pixels). Draws a line if the pen is down, not if the pen is up. |
| backward(distance) | Moves the turtle backward (in the direction opposite to how the turtle is facing) the distance indicated (in pixels). Draws a line if the pen is down, not if the pen is up. |
| setheading(angle) | Sets the orientation of the turtle to angle. Here are some common directions in degrees: |
| | 0 (east) |
| | 90 (north) |
| | 180 (west) |
| | 270 (south) |
| goto(x,y) | Moves the turtle to the specified coordinates, drawing a straight line to the destination (x,y) if the pen is down, and not drawing if the pen is up. |
| circle(radius) | Draws a circle of the indicated radius. The turtle draws the circle tangent to the direction the turtle is facing. |