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1 import turtle
2
3 class labels_x_axis:
4     #a class to write text at specified angle
5     def write_tilted_text(self, text_to_write, text_font=("Arial", 11, "normal"
6     ), text_alignment="left", angle=0):
7         self.screen.write(self._position, str(text_to_write), text_alignment.
8         lower(), text_font, self._pencolor, angle)
9
10    def tilted_text(self, position, text, alignment, text_font, text_colour,
11    text_angle):
12        x, y = position
13        x *= self.xscale #adjust the x position based on scale factor
14        y *= self.yscale #adjust the y position based on scale factor
15        text_rotating_point = {"left":"sw", "center":"s", "right":"se" } #map
16        the alignment to the appropriate anchor
17        item = self.cv.create_text(x-1, -y, text = text, anchor =
18        text_rotating_point[alignment], fill = text_colour, font = text_font, angle =
19        text_angle)
20
21
22 # monkey patching the write method to include rotated text subrouitne
23
24 turtle.RawTurtle.write = Rotated_text.write_tilted_text
25 turtle.TurtleScreenBase.write = Rotated_text.tilted_text
26
27
28 # =====
29 tt = turtle.Turtle()
30 text_to_write = 'abc'
31 tt.speed('normal')
32 tt.color("green")
33 sc = turtle.Screen() ; sc.bgcolor("white")
34 txt_angle1 = 270
35 tt.setheading(txt_angle1); tt.forward(100)
36 tt.write(text_to_write, text_font=("Arial", 10, "bold"), text_alignment="right"
37 , angle=txt_angle1)
38 tt.backward(100)
39
40
41 from time import sleep
42 sleep(100)
43
44
45
46
47
48 # # Function to write text vertically
49 # def write_vertical(turtle, text, x, y):
50 #     turtle.penup()
51 #     turtle.goto(x, y)
52 #     turtle.pendown()

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53 #     turtle.setheading(90) # Set turtle to point upwards
54 #     for char in text:
55 #         turtle.write(char, align='center', font=('Arial', 12, 'normal'))
56 #         turtle.forward(15) # Adjust this value as needed
57 #         turtle.right(90) # Rotate turtle to write the next character
    vertically
58
59 # # Create a turtle object
60 # my_turtle = turtle.Turtle()
61
62 # # Write the text vertically at position (x, y)
63 # write_vertical(my_turtle, "Your text here", 0, 0)
64
65 # # Keep the window open until it's manually closed
66 # turtle.done()
67
```