Hi,

Thank You, Happy New Year to you and your family. I wish this year brings success, prosperity and happiness in your life.

1. You can change the speed of the text scrolling by changing the argument to time.sleep() on line 90.

Here is it 0.4 you change it to 0.3 or 0.2 or 0.1 through which you can increase the sleep. It is delay so if you decrease this the speed will increase.

Text

Description automatically generated

1. This is a function to scroll the text on the LCD. First we have defined an empty space of length 20, so they are 20 spaces.

Then we get the message which the user wants to display.

Then we concatenated the message and empty spaces.

Then we have a for loop which runs from 0 to the length of the message.

First it will get the text we want to display by using string slicing which is controlled by i, the counter variable of the loop. The first argument is the i which is the starting position and the second argument is the final position which is not included, one less than the last position is included in the string. So it will slice the string from initial position to final position -1 .

Then print the string on the screen.

Then give a delay of 0.4 seconds

Then clears the screen by showing the empty spaces.

Then the loop continues.

1. The LCD lines are defined from line 15 to 18.

You can’t do LCD\_LINE\_5 because the LCD don’t have 5 lines. The lines are defined by the addresses of the Lines. So don’t change them. It will change text position.