

## Assignment 7.

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[43212]

Title : Rolling display program.

Problem Statement :-

Wireless network : Develop an app for a rolling display program of news on computer display. The input strings are supplied by the mobile phone / by another computer connected through wireless network.

Theory:-

→ LCD

Liquid Crystal Display allows you to control LCD displays.

→ Hardware required

- 1) Arduino board
- 2) LCD Screen
- 3) Resistor
- 4) Wires.

→ Circuit Connection

- The pin 15 [VDD] of the LCD module is connected to Vcc via a small-value resistor.

- Pin 3 [VSS] is connected to the variable terminal of the pot are connected to ground and Vcc

- The R/W pin is connected to ground because arduino will only write data to LCD module.

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- The RS, EN, DB4, DB5, DB6, DB7 pins of the LCD are connected to pin 13, 11, 7, 6, 5 and 4 of arduino UNO resp.

### → Methods

- 1] `scrollDisplayLeft()`, `scrollDisplayRight()` Method to reverse the direction the text is flowing.

### → Advantages of LCD

- 1) Does not affect by magnetic field
- 2) Due to low power consumption, small heat is emitted during operation.

### → Disadvantage of LCD

- 1] In high temperature environment, there is loss of contrast.
- 2] It consumes a lot of electricity which produce a lot of heat.

### → Application of LCD.

- 1] Digital wrist watches, aircraft cockpit display
- displaying image used in digital cameras.

### → Conclusion

In this way, I have implemented program to display strings on rolling display.