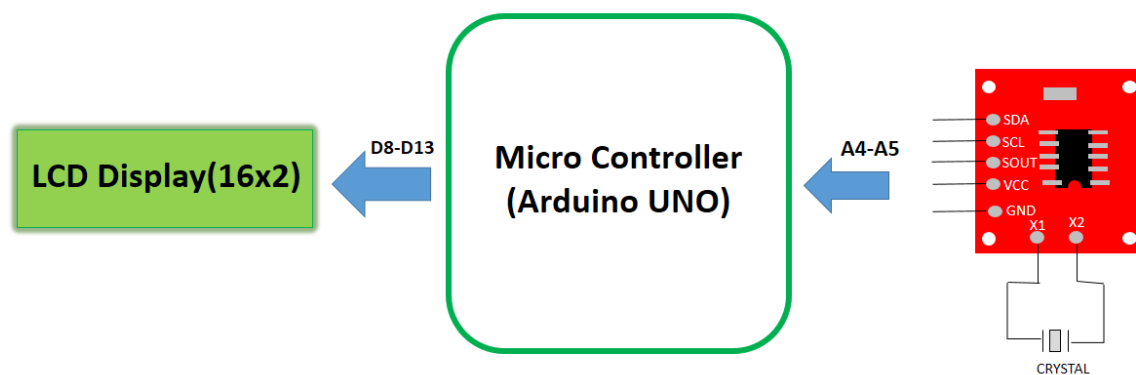# Display Date and Time Using Real Time Clock (RTC)

Description:

This Project is to display **Date and Time** using **Real Time Clock (RTC)** on a **LCD (16x2) display**. The RTC module is used to keep **track of the time** even when the Arduino board is **powered off**. The time data from the **RTC module** is then displayed on the **LCD display** using **I2C communication**. A library is used to simplify the code and make it easier to work with the RTC and LCD components. The **date and time** in the code can be **adjusted** before uploading it to the board to **ensure** that the **correct time is displayed**.
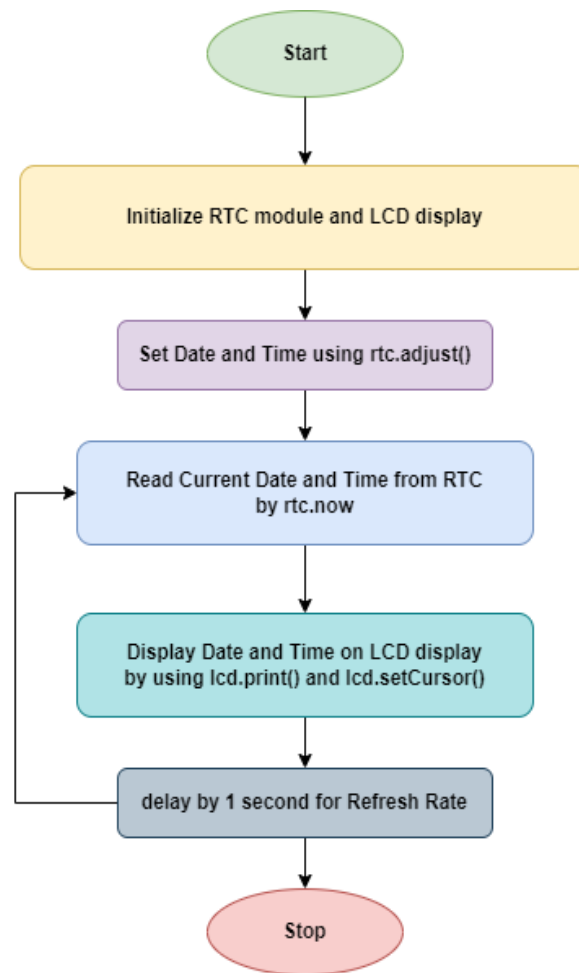
Block Diagram:

Inputs and Outputs:

S.No	Description	Name	Type	Data Direction	Spec	Remarks
1	Serial Data	SDA	INP	DI	5VDC	Active High
2	Serial Clock	SCL	INP	DI	5VDC	Active High
3	LCD Reset Pin	RS	OUT	DO	5VDC	Active High
4	LCD Enable Pin	E	OUT	DO	5VDC	Active High
5	LCD Data Pin 1	D4	OUT	DO	5VDC	Active High
6	LCD Data Pin 2	D5	OUT	DO	5VDC	Active High
7	LCD Data Pin 3	D6	OUT	DO	5VDC	Active High
8	LCD Data Pin 4	D7	OUT	DO	5VDC	Active High

Flow Chart:

Start

Initialize RTC module and LCD display

Set Date and Time using rtc.adjust()

Read Current Date and Time from RTC by rtc.now

Display Date and Time on LCD display by using lcd.print() and lcd.setCursor()

delay by 1 second for Refresh Rate

Stop

The END