Experiment 2.3

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Semester: 6   **Date of Performance: 10/04/23**
Subject Name: IOT LAB   **Subject Code: 20CSP_358**

1. Aim:

To display Hello World on LCD using Arduino Uno.

2. Objective:

• Learn about IoT based simulations.
• Learning the circuitry.

3. Code-Output:

• Hardware Requirement
   o Arduino Uno
   o LCD 16x2
   o Jumper Wire

About LCD:

A Liquid Crystal Display commonly abbreviated as LCD is basically a display unit built using Liquid Crystal technology. To display output values and messages.

JHD162A is a 16×2 LCD module based on the HD44780 driver from Hitachi. The JHD162A has 16 pins and can be operated in 4-bit mode or 8-bit mode. Here we are using the LCD module in 4-bit mode.

➢ **Circuit**
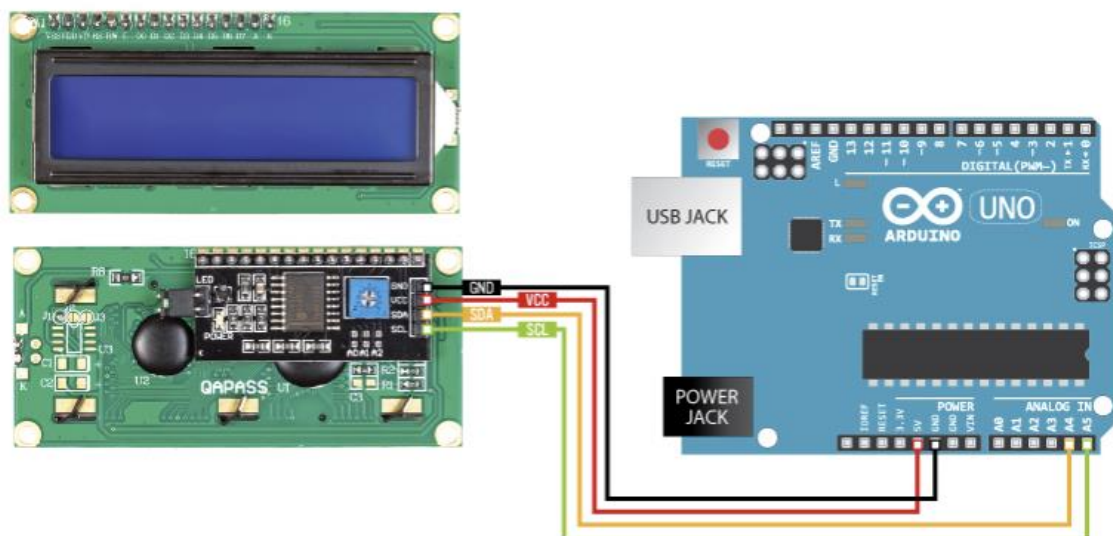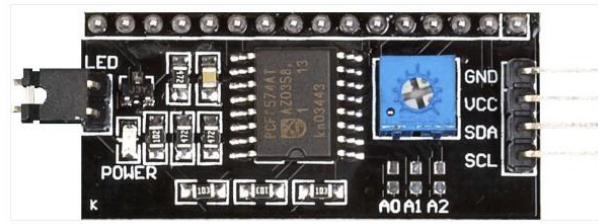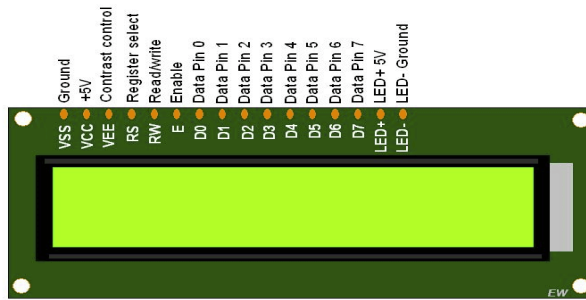
SDA – Serial Data
SCL – Serial Clock

Code :-

```
#include <LiquidCrystal.h>

const int rs = 12, en = 11, d4 = 6, d5 = 5, d6 = 4, d7 = 3;

LiquidCrystal lcd(rs, en, d4, d5, d6, d7);

void setup() {

 lcd.begin(16, 2);          // set up the LCD's number of columns and rows:

 lcd.print("Hello World!");          // Print a text to the LCD.

}

void loop() {                  // set the cursor to column 0, line 1

 lcd.setCursor(0, 1);              // (note: line 1 is the second row, since counting begins with 0):

 lcd.print(millis() / 1000);          // print the number of seconds since reset:

}
```

OUTPUT :-