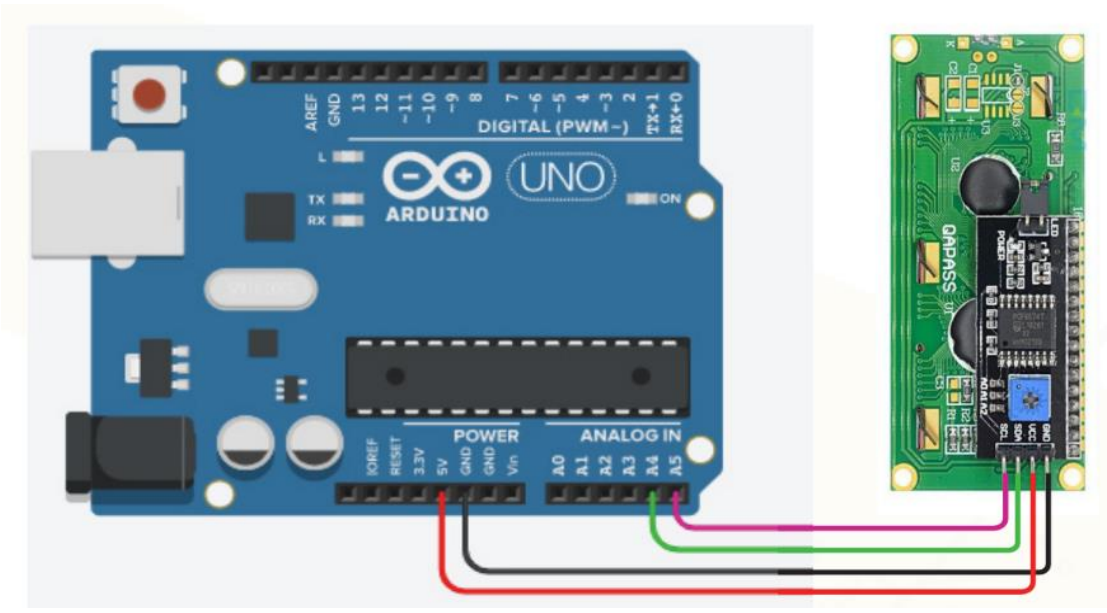
Display 0 to 9 on LCD

Aim: - The aim of this project is to display 0 to 9 on LCD

Components Required

Sl. No	Items	Quantity
1	Jumper wire	4
2	Arduino uno	1
3	Arduino cable	1
4	I2C based LCD	1
6	Battery (9V)	1
7	Battery cap (DC jack)	1

Circuit Diagram



Procedure

- Take breadboard and arduino board.
- Take LCD and four jumper wires.
- Make the connections as follows

LCD	Arduino
GND	GND
VCC	5V
SDA	A4
SCL	A5

Procedure to upload the code

• Once connections are done then connect an arduino board to your laptop/computer system using an arduino cable.

• Open arduino IDE.
• Open program file in arduino IDE. Go to File->Open>Download>select print_0to9_ numbers_on_LCD.
• Click on the upload option.

Program

```
#include <LCD_I2C.h>

LCD_I2C lcd(0x27); // Default address of most PCF8574 modules, change according
void setup(){


lcd.begin(); // If you are using more I2C devices using the Wire library use lcd.begin(false)
// this stop the library(LCD_I2C) from calling Wire.begin() lcd.backlight();
}
void loop(){
lcd.setCursor(0,0);
lcd.print('0');
delay(500);
lcd.setCursor(1,1);
lcd.print('1');
delay(500);
lcd.setCursor(2,0);
lcd.print('2');
```

```
delay(500);
lcd.setCursor(3,1);
lcd.print('3');
delay(500);
lcd.setCursor(4,0);
lcd.print('4');
delay(500);
lcd.setCursor(5,1);
lcd.print('5');
delay(500);
lcd.setCursor(6,0);
lcd.print('6');
delay(500);
lcd.setCursor(7,1);
lcd.print('7');
delay(500);
lcd.setCursor(8,0);
lcd.print('8');
delay(500);
lcd.setCursor(9,1);
lcd.print('9');
delay(500);
lcd.clear();
delay(2000);
}
```

Output

- You can display numbers on LCD in any pattern.
- Hint: Just change the numbers from the lcd.setCursor(0,0); function. You can add numbers between 0 to 15 and see the changes.
- LCD is 16x2 means 2 rows and 16 columns, so you can see only 16 characters at a time on each line of LCD.

9V Battery connection:

1. You are powering the arduino through your laptop. You can also power the arduino through a 9v battery.

2. Disconnect the arduino cable and connect the 9v battery to the arduino board using the power jack connector. Now you can see the circuit is working.

Do not connect the battery all the time to the arduino board. It will drain the battery.