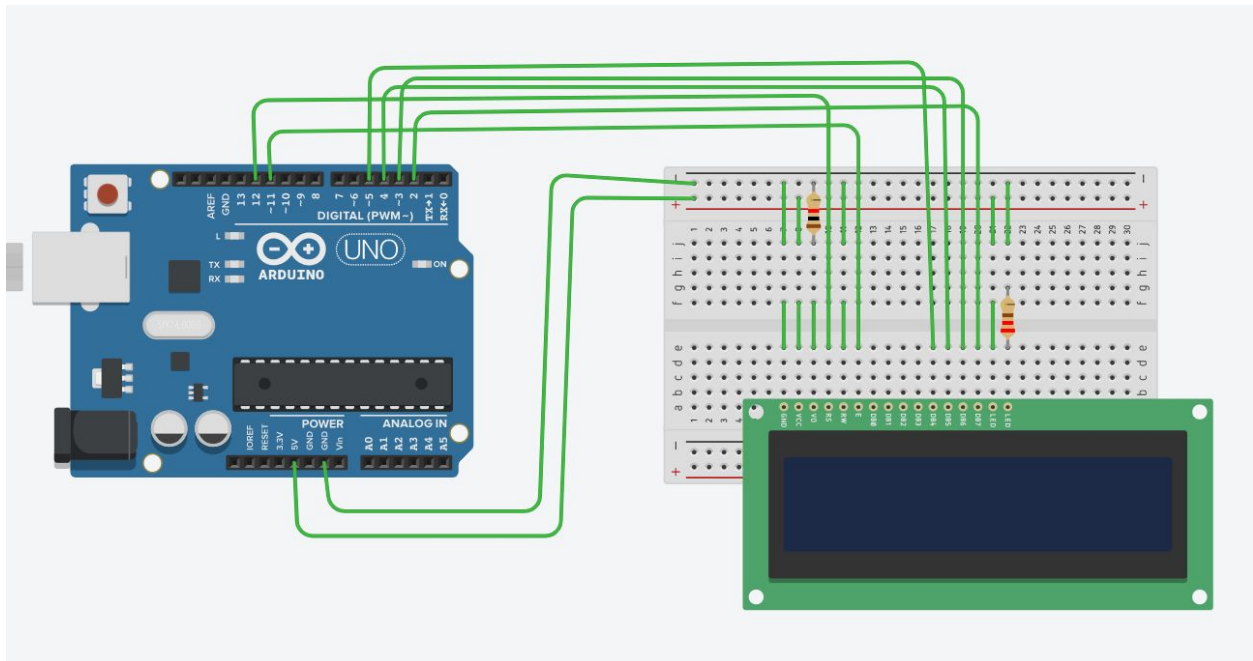


COMP1045 Lab 8- LCD Screen

Circuit diagram: Please build the following circuit.



Level 1: Copy and paste the following code to test your circuit.

```
#include <LiquidCrystal.h>
//Initialise the Serial LCD.
LiquidCrystal lcd( 12,11,5,4,3,2); //These pin numbers are hard coded in on the serial backpack
board.
```

```
void setup()
{
  lcd.begin (16,2);    //Initialize the LCD.
}
```

```
void loop(){
    lcd.clear();
    lcd.setCursor(0,0); //goto first column and first line (0,0)
    lcd.print("321"); //Print at cursor Location
    lcd.setCursor(0,1); //goto first column and second line
    lcd.print("Maker"); //Print at cursor Location
    delay(1000);
}
```

Level 2: Write a program that prints your name and have it shift your name back and forth across the LCD. It should move to the right on the top row, stop at the edge of the screen, then come back in on the bottom row moving left until the edge of the screen then repeats. (See online tutorial video for example)

Level 3: Write a program that will display your name, then when the user presses sw1 (d8) your favorite hobby or interest will be displayed. Then if they push sw1 (d8) again, the display will show what you want for lunch. Finally if sw1 (d8) is pushed again then the display reset and display your name again.

Level 4: Add two buttons to the circuit board. Create a short (4-5 questions) survey where the person is asked a question then response with either yes or no using the two buttons. Keep track of the number of each response. Store all questions and answers in arrays. At the end of the program have a closing message that's chosen based on how many times they said yes or no. Use methods/functions in some form.