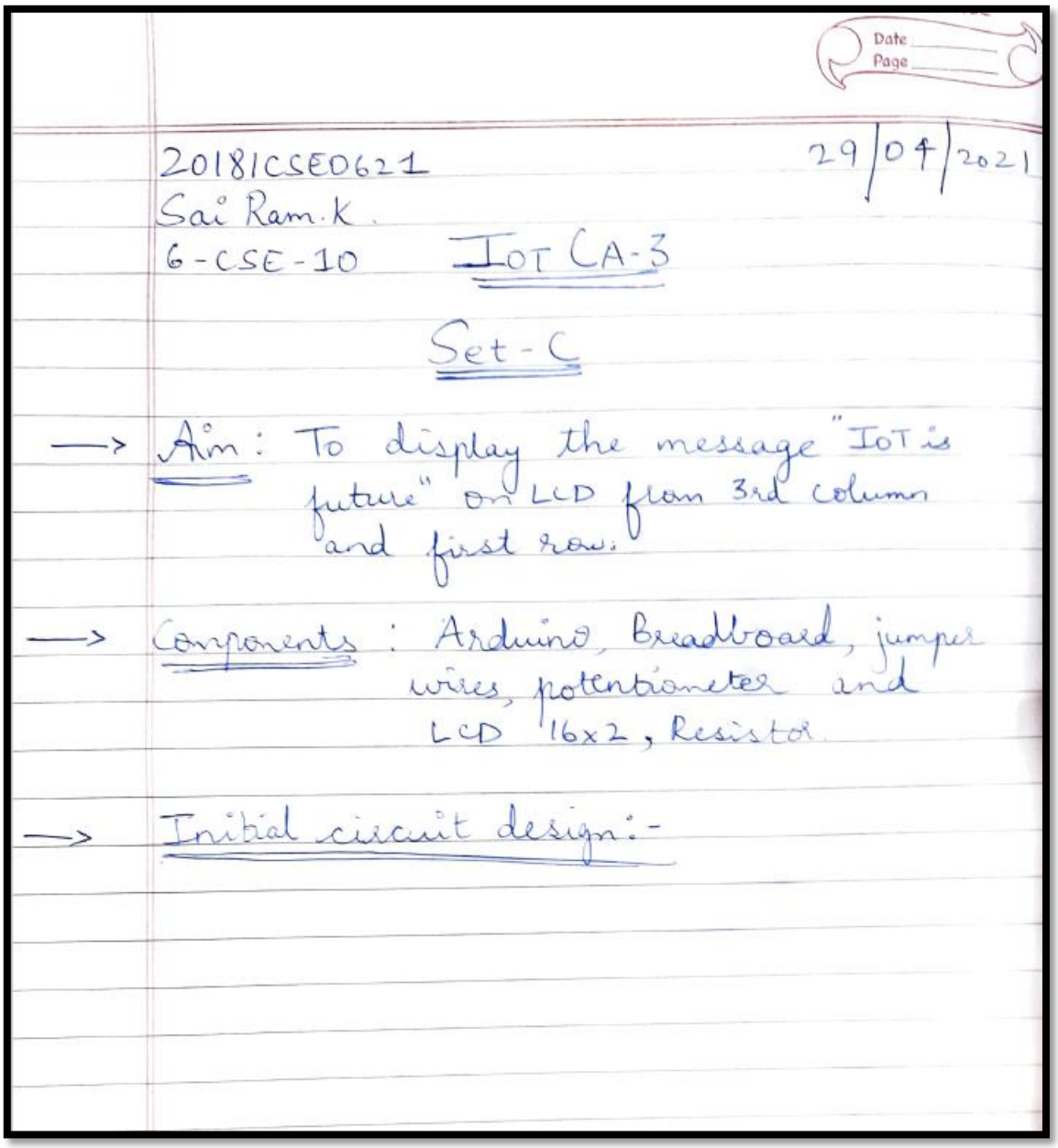
20181CSE0621
Sai Ram. K

Set C

Question:

Write a sketch to display a message “iot is future “ in lcd starting from the position 3rd column 1st row and simulate the same using tinker cad.



20181CSE0621 29/04/2021
Sai Ram.K.
6-CSE-10 IOT CA-3

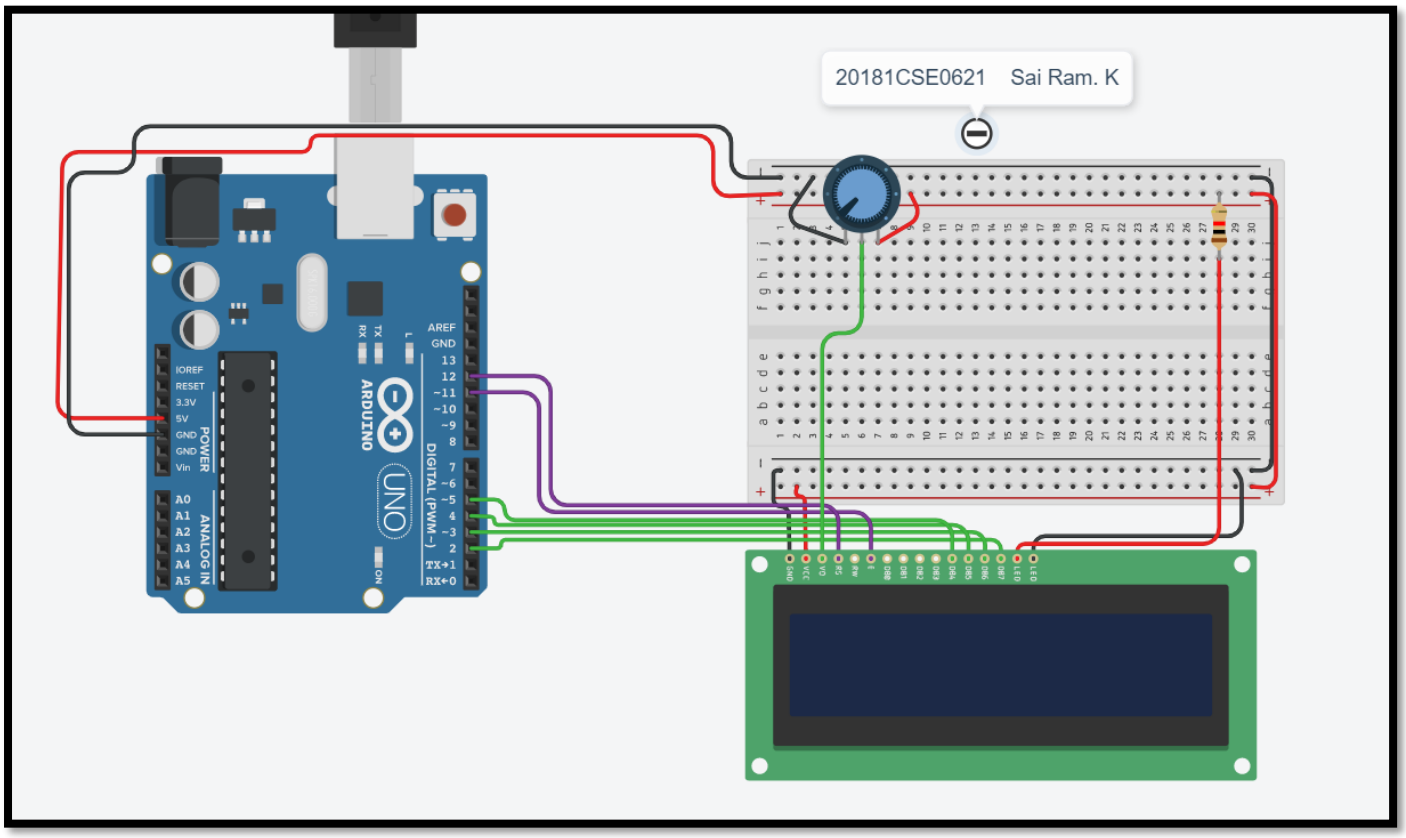
Set-C

—> Aim: To display the message "IoT is future" on LCD from 3rd column and first row.

—> Components: Arduino, Breadboard, jumper wires, potentiometer and LCD 16x2, Resistor.

—> Initial circuit design:-

Initial Circuit Design:



Procedure:

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—> PROCEDURE:

Step 1: Assemble all the required components. Connect the +5V and Ground of arduino to the breadboard on either side for a common ground & 5V point using Jumper wires.

Step 2: Place the Potentiometer on the bread-board.

Step 3: Connect the Terminal-1 of potentiometer to ground & Terminal-2 to +5V (common point).

Step 4: Connect the Wiper of potentiometer to the Contrast pin of LCD 16x2.

Step 5: Connect pin 1 & pin 2 to ground & +5V respectively.

Step 6: Connect pin 4 i.e. Register Select to pin 12 of the arduino (can be connected to any digital pin)

Step 7: Connect pin 6 i.e Enable pin to pin 11 of the arduino.

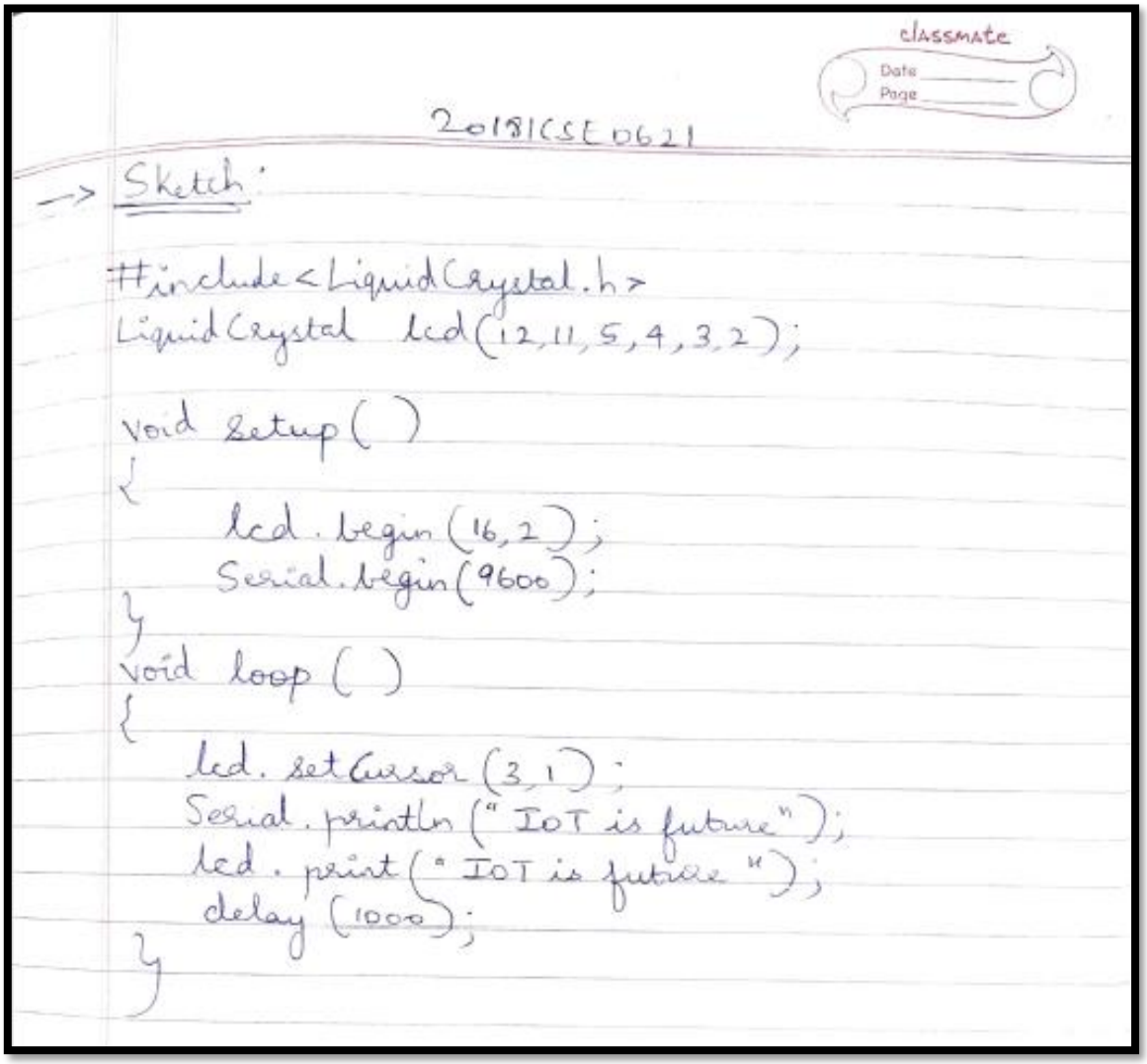
Step 8: Connect the DB pins from DB4 to DB7 to pins 2 to pin 5 of the arduino respectively.

Step 9: Connect pin 15 to a 1kΩ resistor and the other end of resistor to +5V.

Step 10: Connect pin 16 to ground.

Step 11: Switch on the circuit and we will find that the message "IoT is Future" will be displayed from the 3rd row and the 1st column of the LCD 16x2.

Sketch:



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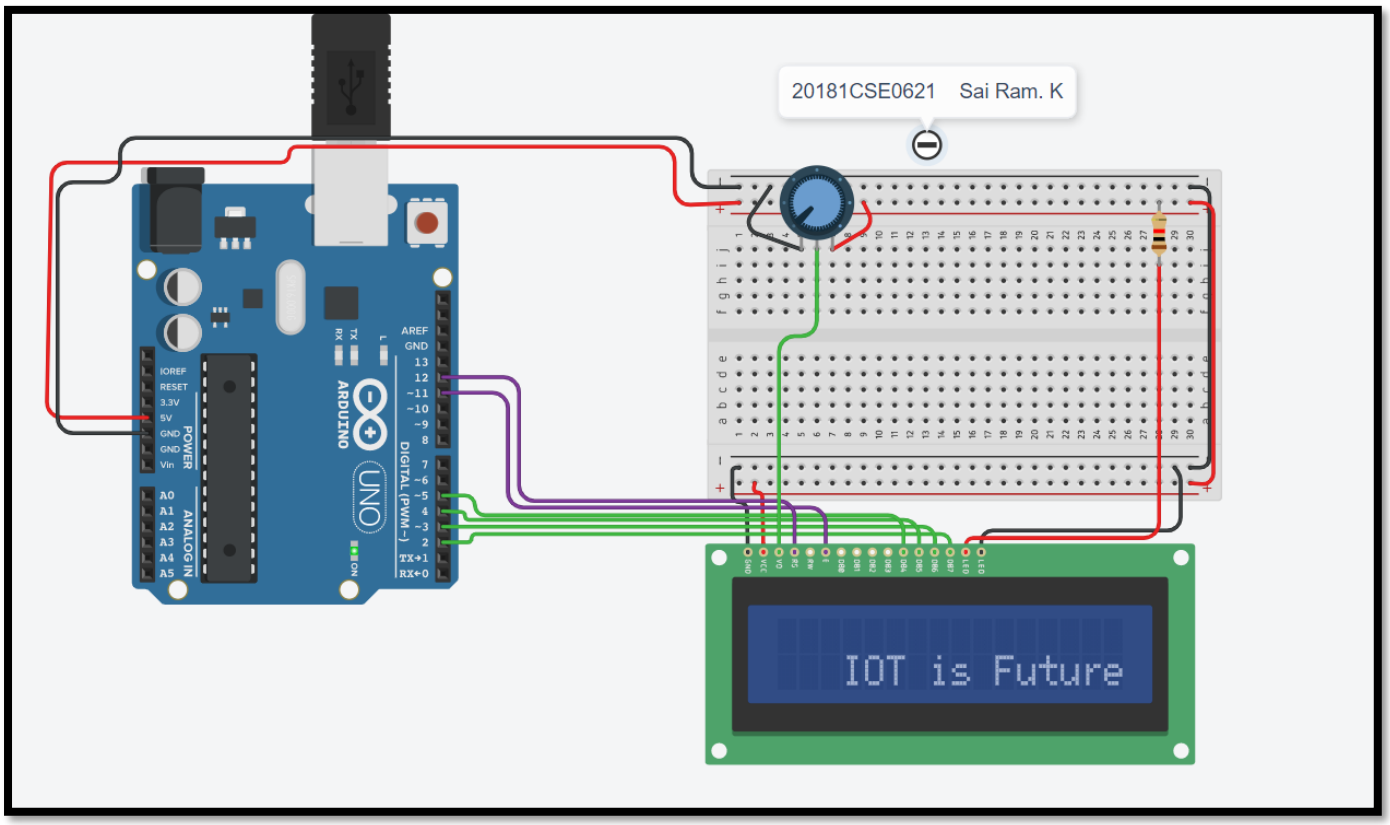
-> Sketch:

```
#include <LiquidCrystal.h>
LiquidCrystal lcd(12,11,5,4,3,2);

void setup()
{
    lcd.begin(16,2);
    Serial.begin(9600);
}
void loop()
{
   lcd.setCursor(3,1);
   Serial.println("IOT is future");
   lcd.print("IOT is future");
    delay(1000);
}
```

Output:



Serial monitor