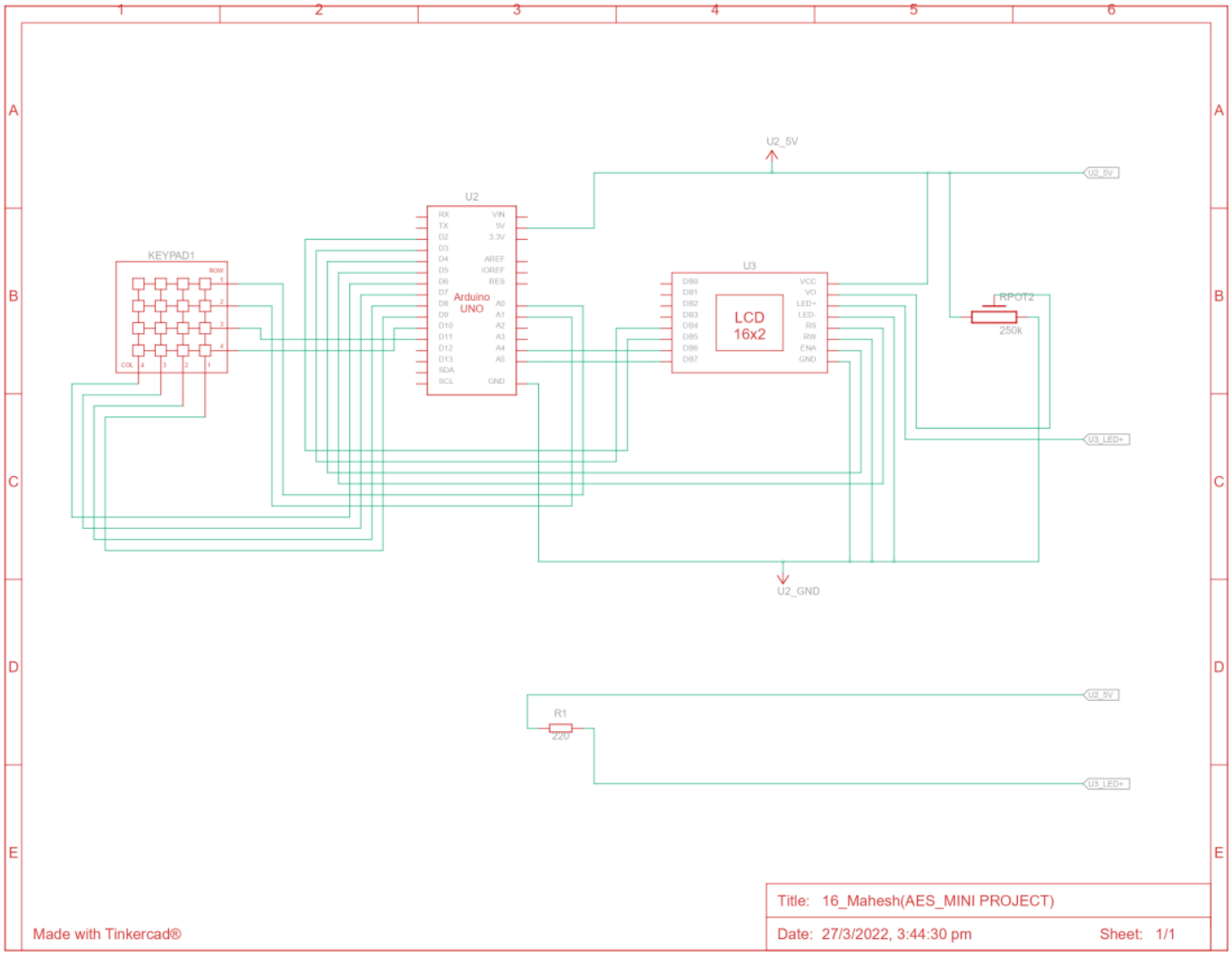
AES MINI PROJECT

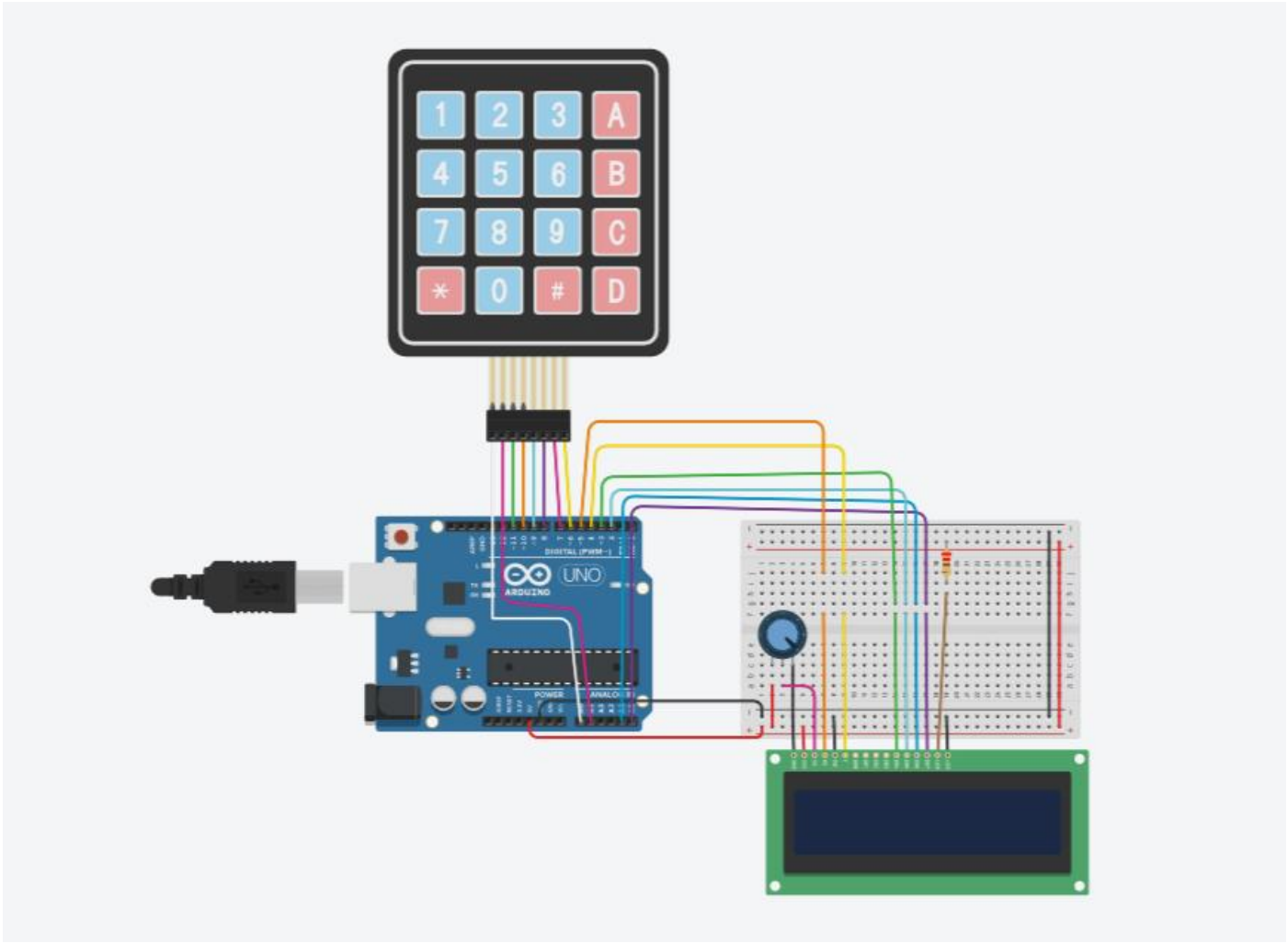
Aim: display keypad input on LCD using Arduino Uno

Hardware Requirement:

Name	Quantity	Component
KEYPAD1	1	Keypad 4x4
U2	1	Arduino Uno R3
U3	1	LCD 16 x 2
Rpot2	1	250 kΩ Potentiometer
R1	1	220 Ω Resistor

Schematic view:





Code:

```
#include <Keypad.h>

#include <LiquidCrystal.h>

LiquidCrystal lcd(5, 4, 3, 2, A4, A5);

const byte ROWS = 4; //four rows

const byte COLS = 4; //three columns

char keys[ROWS][COLS] = {

  {'1','2','3','A'},

  {'4','5','6','B'},

  {'7','8','9','C'},

  {'*','0','#','D'}
```

```
};
byte rowPins[ROWS] = {A0, A1, 11, 10}; //connect to the row pinouts of the keypad
byte colPins[COLS] = {9, 8, 7, 6}; //connect to the column pinouts of the keypad
int LCDCol = 0;
int LCDRow = 0;
Keypad keypad = Keypad( makeKeymap(keys), rowPins, colPins, ROWS, COLS );
void setup(){
  Serial.begin(9600);
  lcd.begin(16, 2);
  lcd.setCursor(LCDCol, LCDRow);
  }
void loop(){
 char key = keypad.getKey();

 if (key){
  Serial.println(key);



  if ( LCDCol > 15  )
  {
   ++LCDRow;

    if (LCDRow>1)
    { LCDRow=0; LCDCol = 0 ;  lcd.clear(); }
```

```
    LCDCol = 0 ;

    }

    lcd.setCursor (LCDCol, LCDRow);


      lcd.print(key);


    ++LCDCol;


  }

}
```

Output:

After you upload the code, when you press a key, the value will be printed out on LCD.