SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC
with 'A++' Grade
Approved by AICTE, New Delhi & Affiliated to Anna
University, Chennai

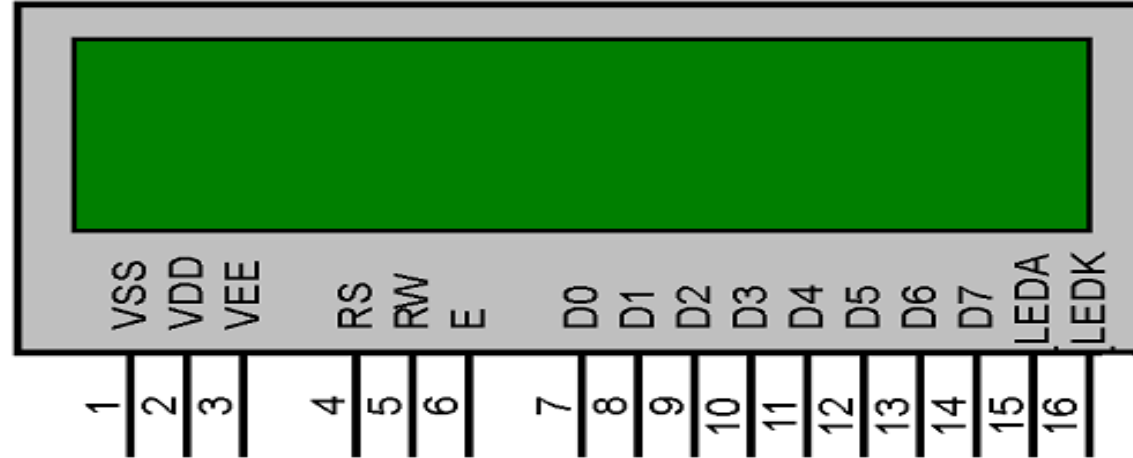# DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

19ECT213-IoT SYSTEM ARCHITECTURE
II YEAR/ IV SEMESTER

UNIT 3 – MICROCONTROLLER AND INTERFACING TECHNIQUES FOR IoT DEVICES

LCD Interfacing with Arduino

VSS – Ground pin – Connected to ground of MCU

VDD - VCC – connected to supply pin of power source

VEE – Control pin – connected to POT – Adjust the contrast of display

RS – Register Select – Command / data – 1) 0 – Command

2) 1 - Data

RW – Read / Write – 1) 0 – Write

2) 1 – Read

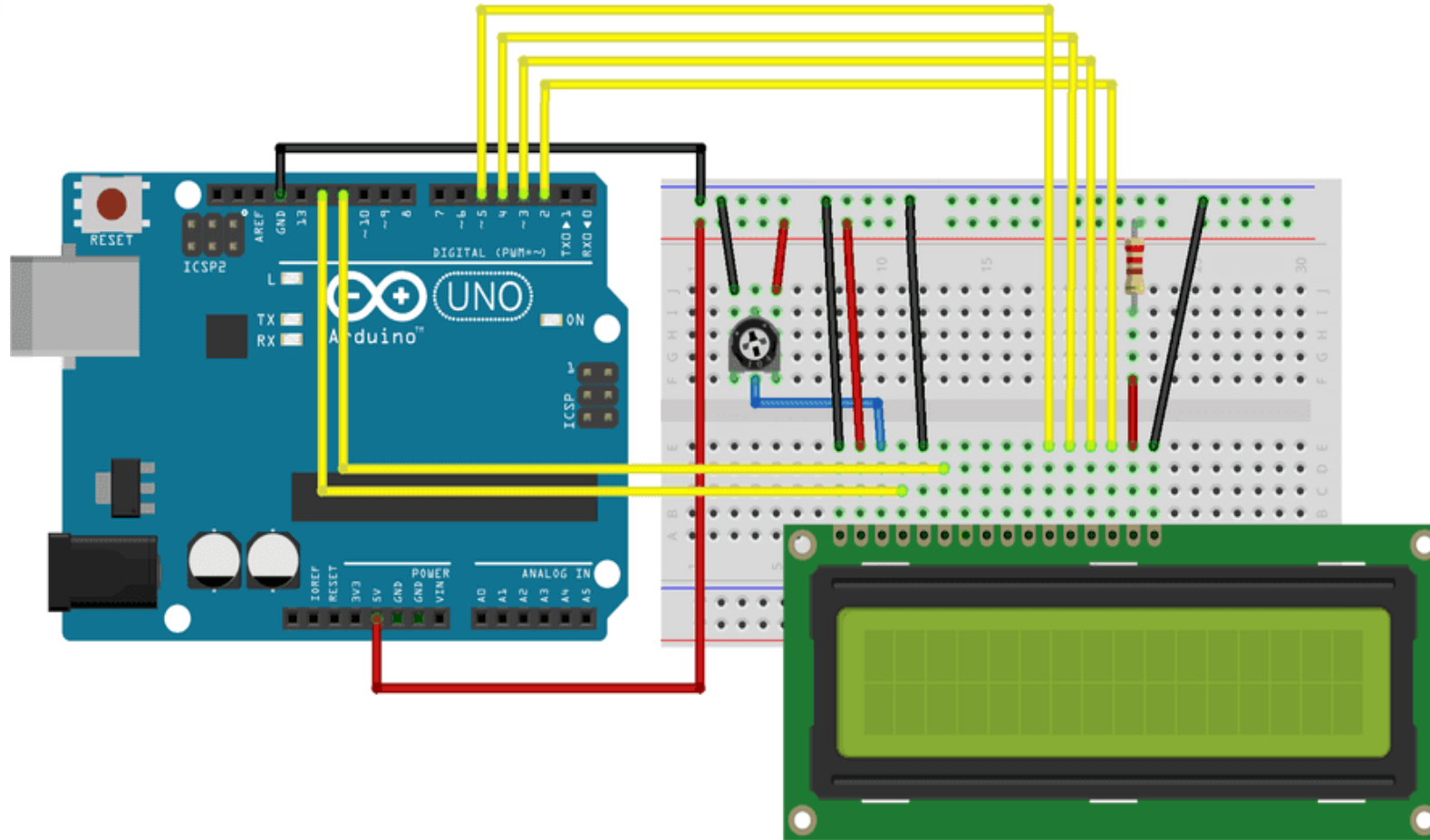E – Enable – must be high for Read and write operations

D0-D7 – Data / Command

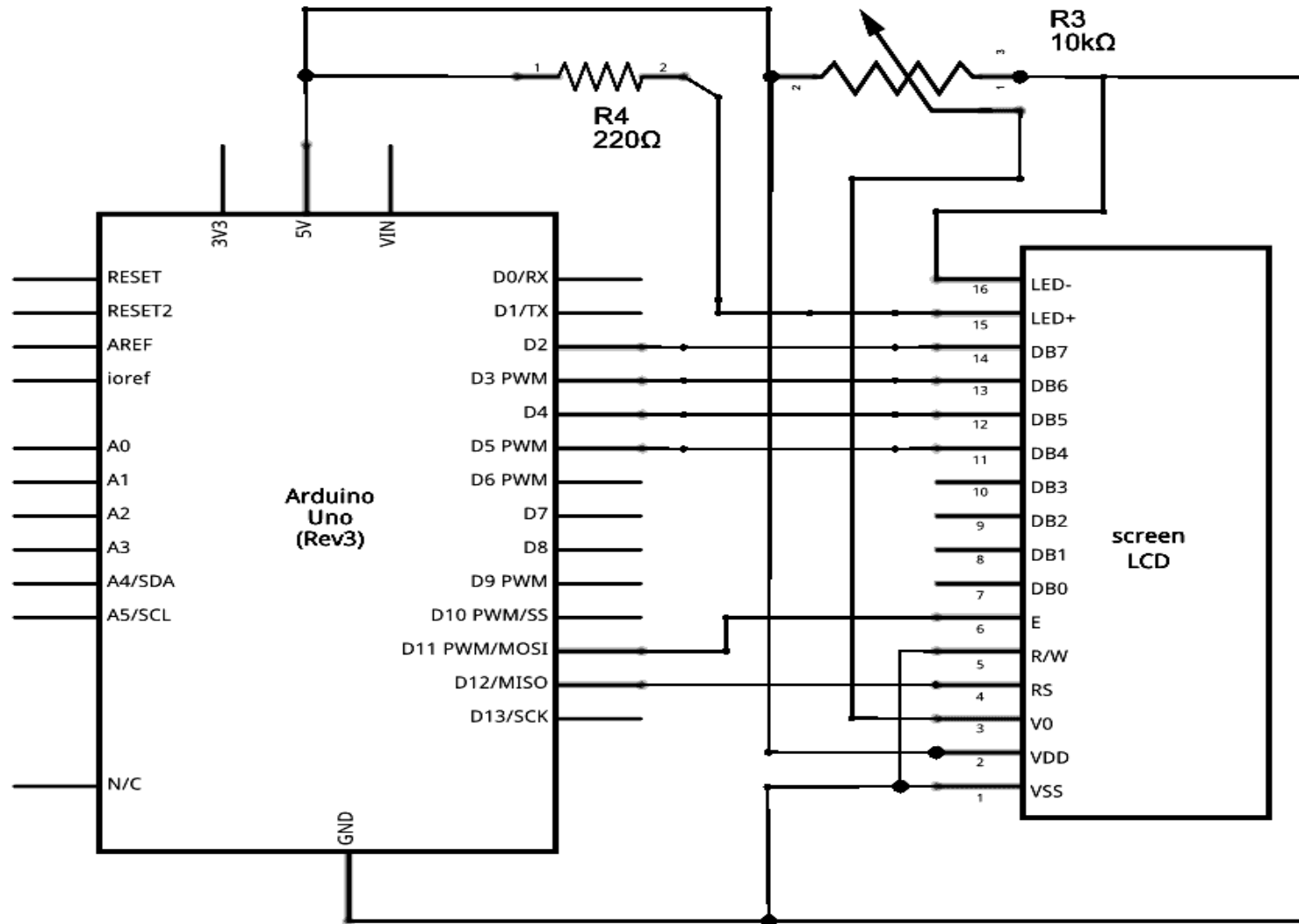LEDA – LED operations – 5V

LEDK – Ground.

INTERFACING/19ECT213-IoT SYSTEM ARCHITECTURE/M.DIVYA/AP-ECE/SNSCT

LCD Interfacing with Arduino

INTERFACING/19ECT213-IoT SYSTEM ARCHITECTURE/M.DIVYA/AP-ECE/SNSCT

LCD Interfacing with Arduino

LCD Interfacing with Arduino


```
sketch_apr2a.ino
1    #include <LiquidCrystal.h>
2    const int rs = 12, en = 11, d4 = 5, d5 = 4, d6 = 3, d7 = 2;
3    LiquidCrystal lcd(rs, en, d4, d5, d6, d7);
4
5    void setup() {
6        // set up the LCD's number of columns and rows:
7        lcd.begin(16, 2);
8        // Print a message to the LCD.
9        lcd.print("hello, world!");
10   }
11
12   void loop() { lcd.setCursor(0, 1);
13       // print the number of seconds since reset:
14       lcd.print(millis() / 1000);
15   }
16
17
18
```

Output
```
Sketch uses 1894 bytes (5%) of program storage space. Maximum is 32256 bytes.
Global variables use 59 bytes (2%) of dynamic memory, leaving 1989 bytes for local variables. Maximum is 2048 bytes.
```

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

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void loop()
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lcd.setCursor(0, 1);
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```