6.2

ARDUINO

Afficheurs 7 segments, LCD, LCD I2C.

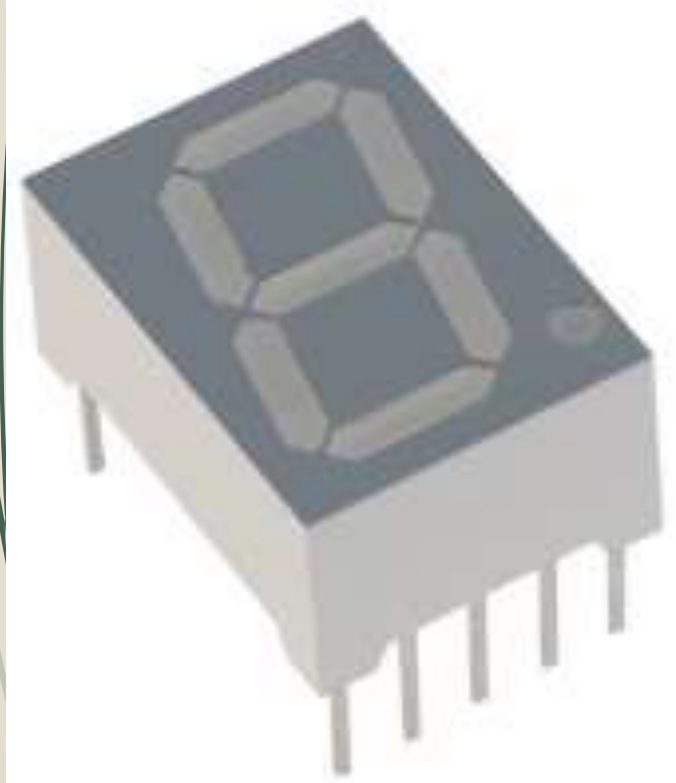
Farouk MEDDAH

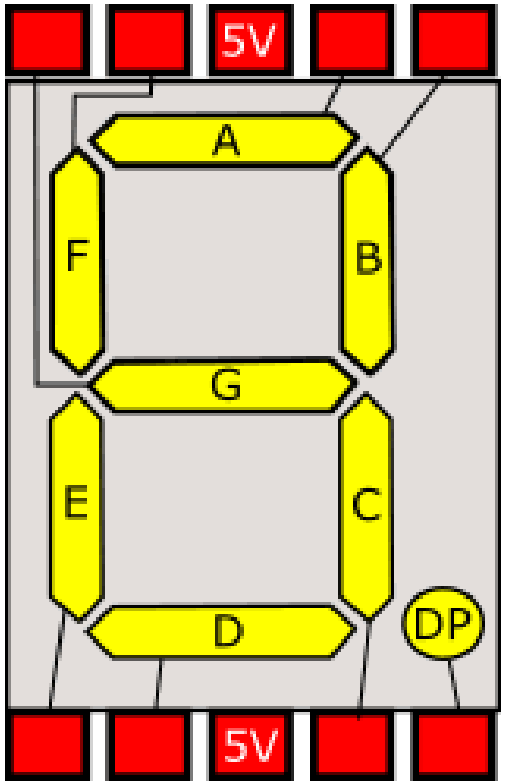
PLAN

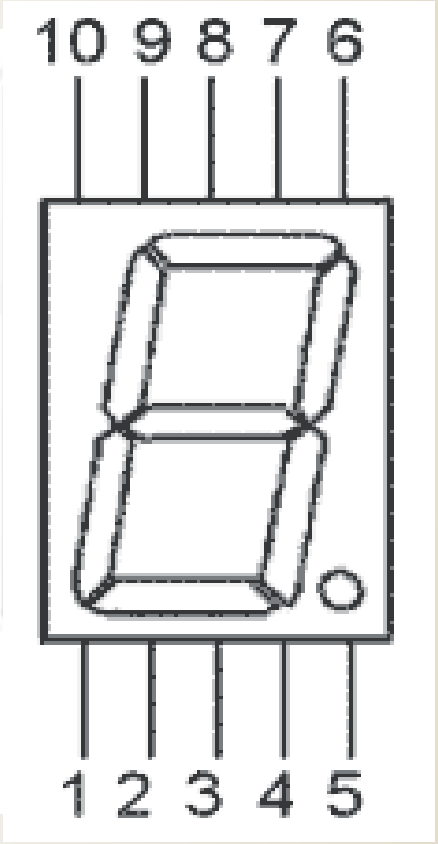
- **AFFICHEURS 7 SEGMENTS**
  - Présentation
  - Circuit d'exemple
- **LCD**
  - Présentation
  - Circuit d'exemple
- **LCD I2C**
  - Présentation
  - Circuit d'exemple

AFFICHEURS 7 SEGMENTS

AFFICHEURS 7 SEG. (1)

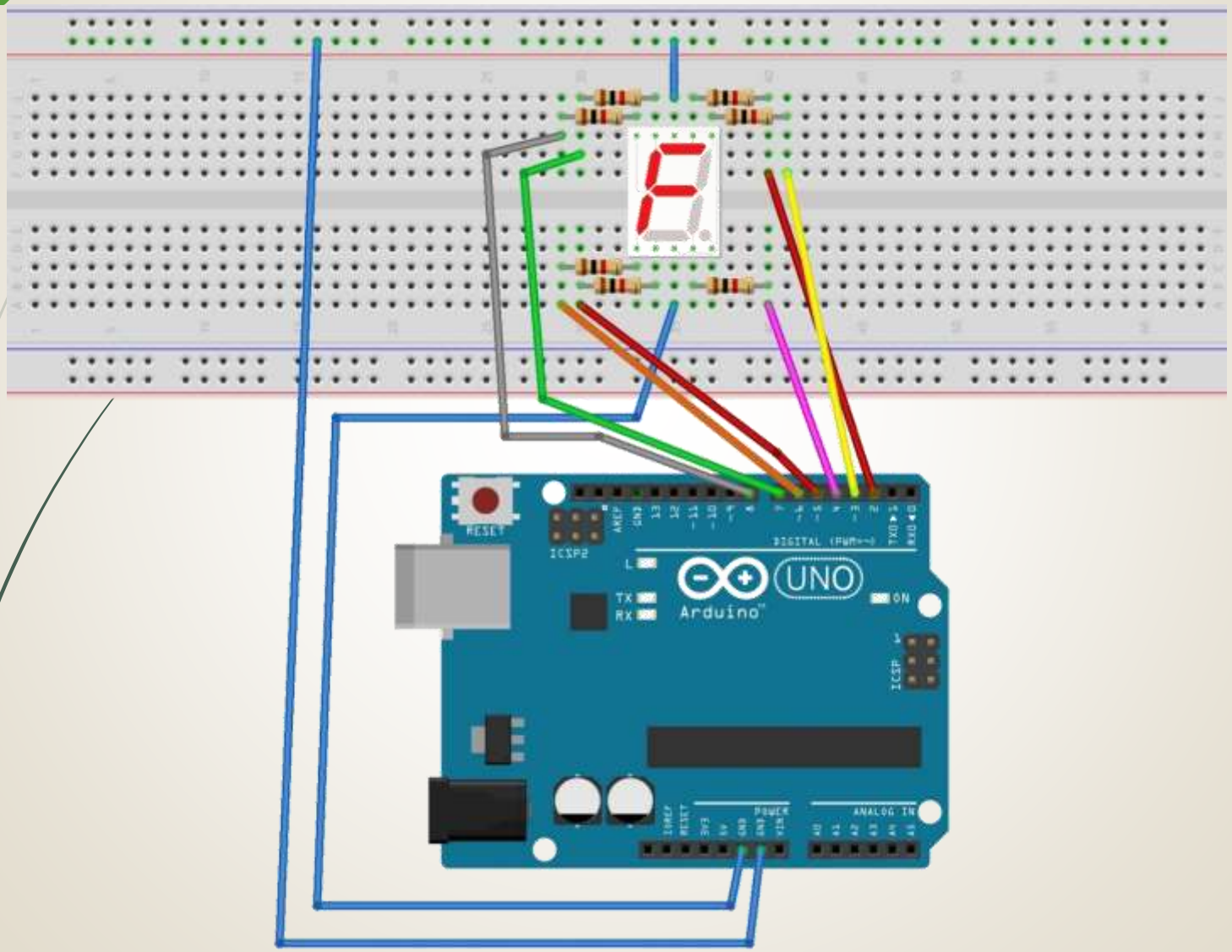






Cet afficheur est de type anode commun, pour les afficheurs de type cathode commun on doit brancher les pin 3 et 8 au GND.

AFFICHEURS 7 SEG. (2)

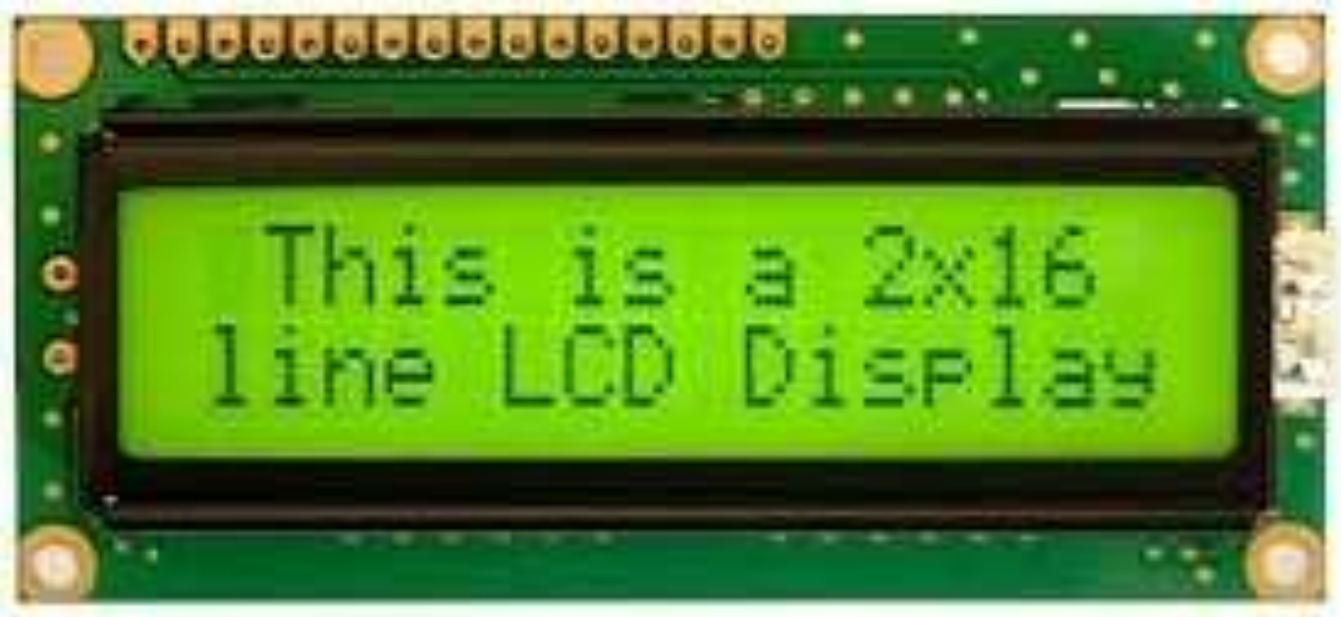


CODE DU PROGRAMME

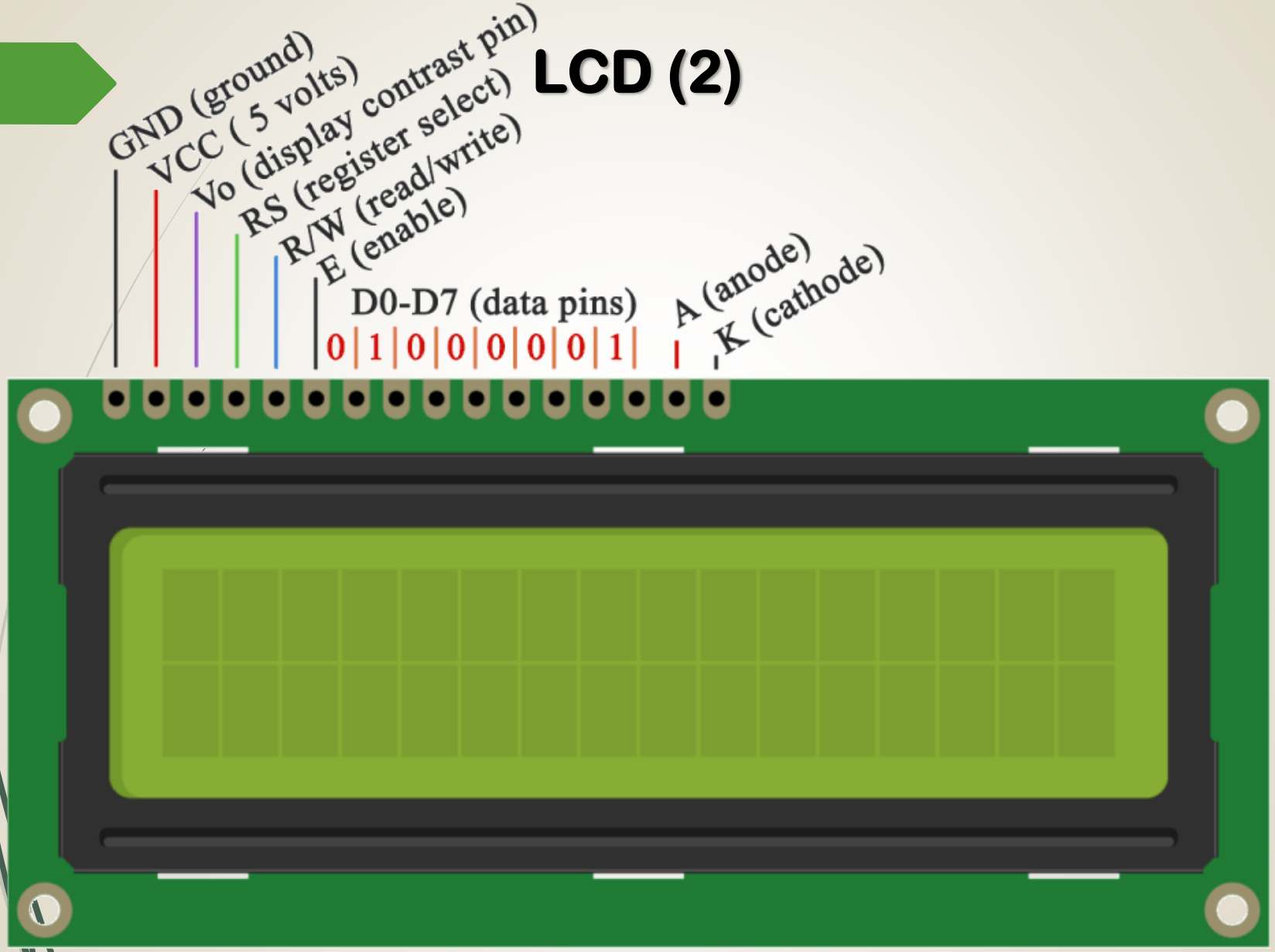
```
int nbrs[10] = {63, 6, 91, 79, 102, 109, 125, 39, 127, 111};
void setup()
{
    for(int i=2; i<=8; i++) pinMode( i, OUTPUT);
}
void out(int n)
{   int d = nbrs[n];
    for(int i=2; i<=8; i++){
        digitalWrite(i, d%2);
        d=d>>1;
    }
   delay(1000);
}
void loop()
{
        for(int i=2; i<=9; i++) out( i);
 }
```

LCD

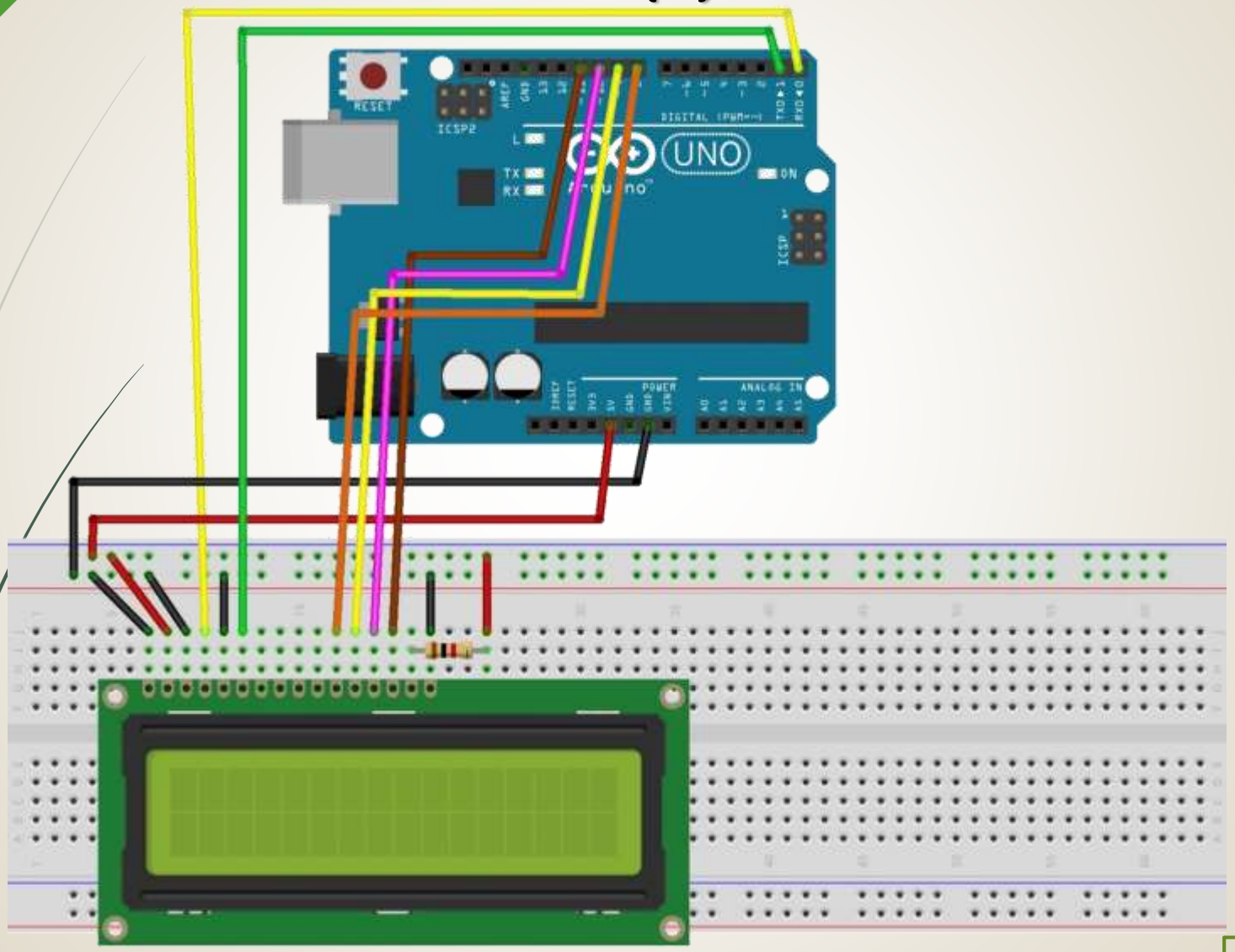
LCD (1)



LCD (2)


GND (ground)
VCC (5 volts)
Vo (display contrast pin)
RS (register select)
R/W (read/write)
E (enable)
D0-D7 (data pins)
0 1 0 0 0 0 0 1
A (anode)
K (cathode)

LCD (3)



CODE DU PROGRAMME

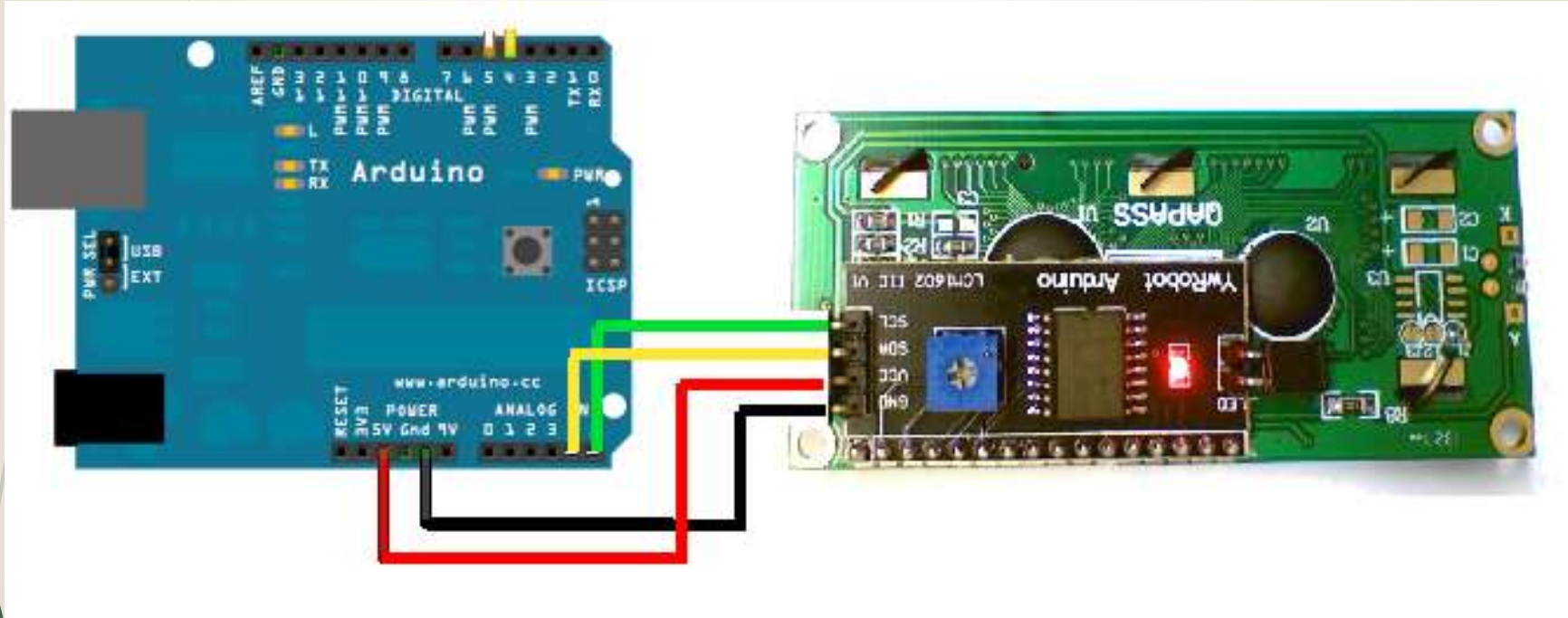
```
#include <LiquidCrystal.h>
LiquidCrystal lcd(0, 1, 8, 9, 10, 11);

void setup()
{
   lcd.begin(16, 2);
}

void loop()
{
  lcd.print("  -*  L.C.D TEST *-  ");
  lcd.setCursor(0, 1);
  lcd.print("  - Welcome to my test -  ");
  delay(750);
  lcd.scrollDisplayLeft();
  lcd.setCursor(0, 0);
}
```

LCD I2C

I2C


16 Pins Connection to LCD
GND
VCC
SDA
SCL
Backlight Jumper
POWER LED
Adjust Display Contrast
Select I2C Address
14 CORE
www.14core.com

LCD I2C (2)


Arduino
DIGITAL
POWER
ANALOG
www.arduino.cc
YwRobot Arduino
SCL
SDA
VCC
GND

CODE DU PROGRAMME

```
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x27, 2, 1, 0, 4, 5, 6, 7, 3, POSITIVE);

void setup()
{
  lcd.begin(16,2);
}
void loop()
{
  lcd.backlight();
  lcd.setCursor(1, 0);
  lcd.print("Hello!");
  delay(1000);
  lcd.setCursor(1, 1);
  lcd.print("Good day");
  delay(1000);
}
```

MERCI