UNIVERSITI PENDIDIKAN SULTAN IDRIS
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SULTAN IDRIS EDUCATION UNIVERSITY

FACULTY OF TECHNICAL & VOCATIONAL
FTV
Leading TVET Global Educators

RISE@UPSI
Research, Innovation, Society and Entrepreneurship

MODUL PEMBELAJARAN ELEKTRONIK DENGAN KEFUNGSIAN PENDERIA

3.0 GABUNGAN

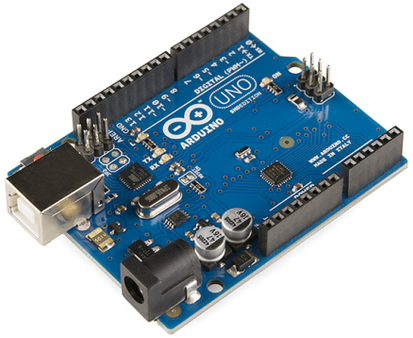
3.1 LCD + TEMPERATURE SENSOR

MULAKAN

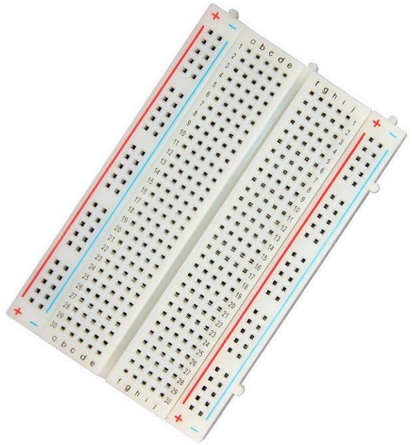
Di sediakan oleh Amin, Dr Irdayanti

STEP 1 :
SEDIAKAN SEMUA KOMPONEN

SLIDESWITCH

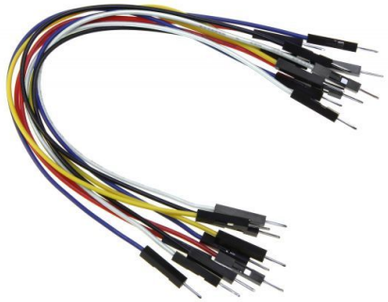


ARDUINO UNO R3



BREADBOARD

LCD 16 X 2 (I2C)



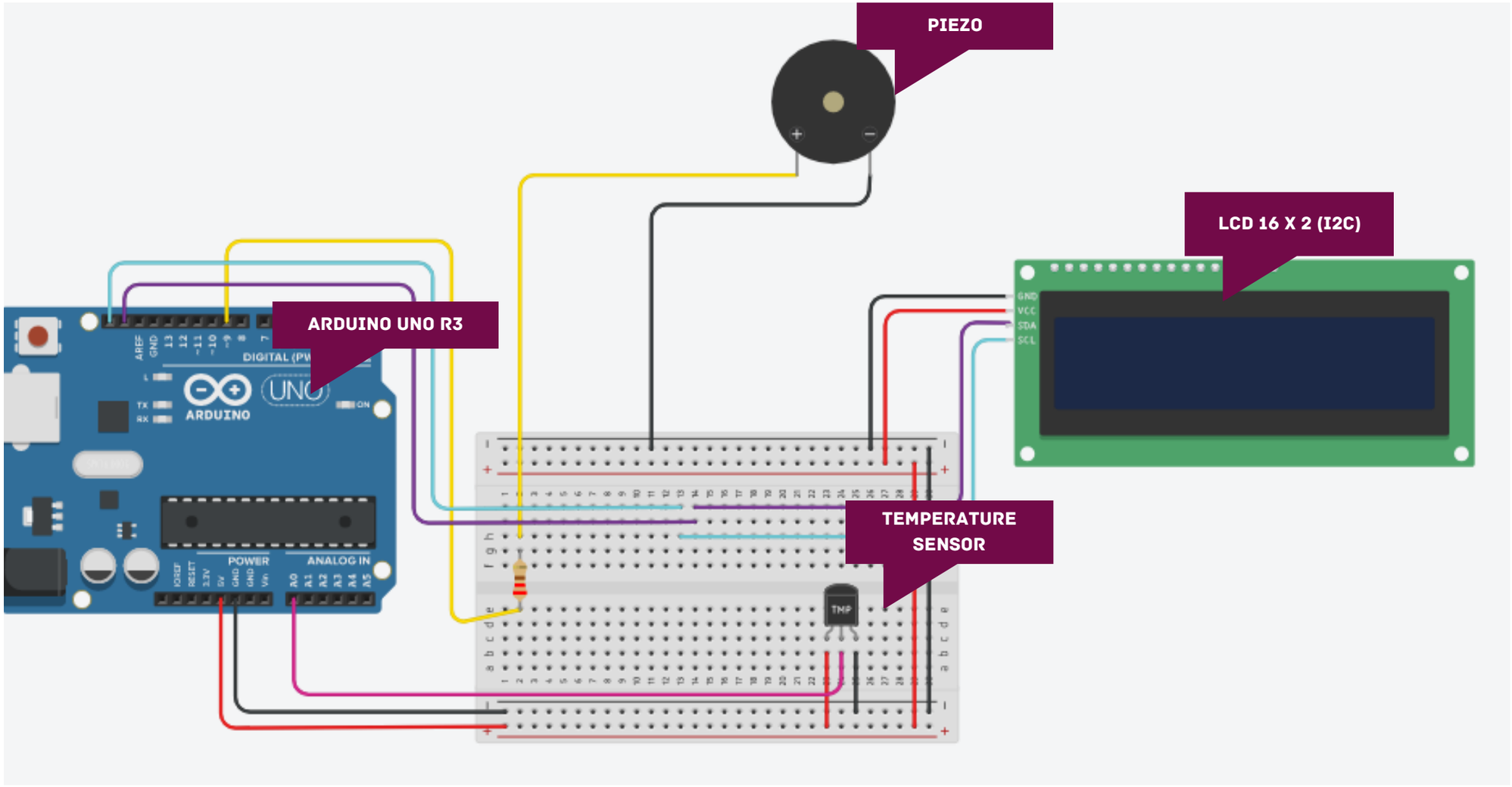
MALE TO MALE / FEMALE TO MALE JUMPER WIRES-10 PIECES

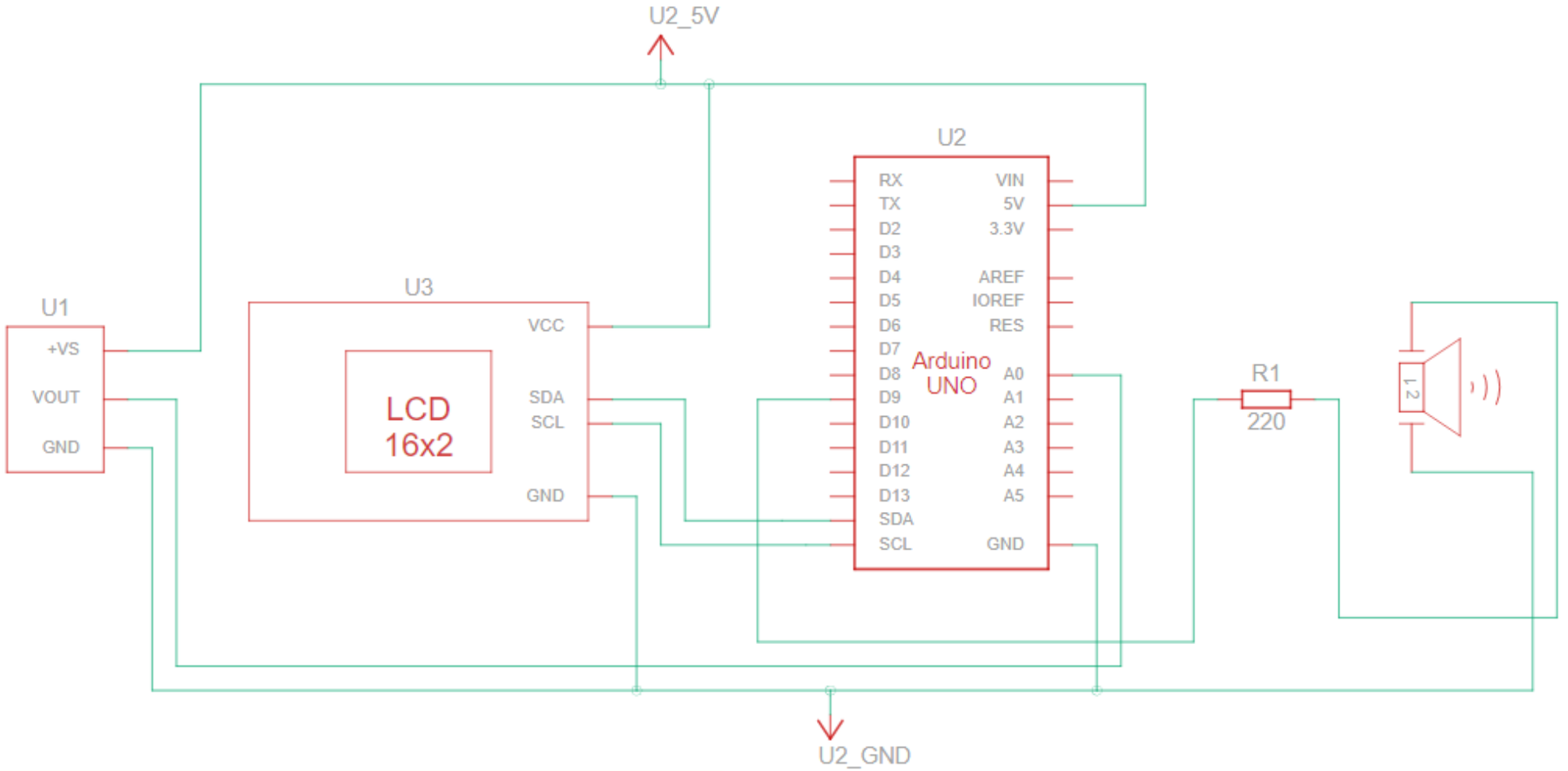
USB CABLE B

TEMPERATURE SENSOR

PIEZO

STEP 2 :
GAMBAR RAJAH SAMBUNGAN


PIEZO
LCD 16 X 2 (I2C)
ARDUINO UNO R3
TEMPERATURE SENSOR
GND
VCC
SDA
SCL
TMP



PANDANGAN SKEMATIK

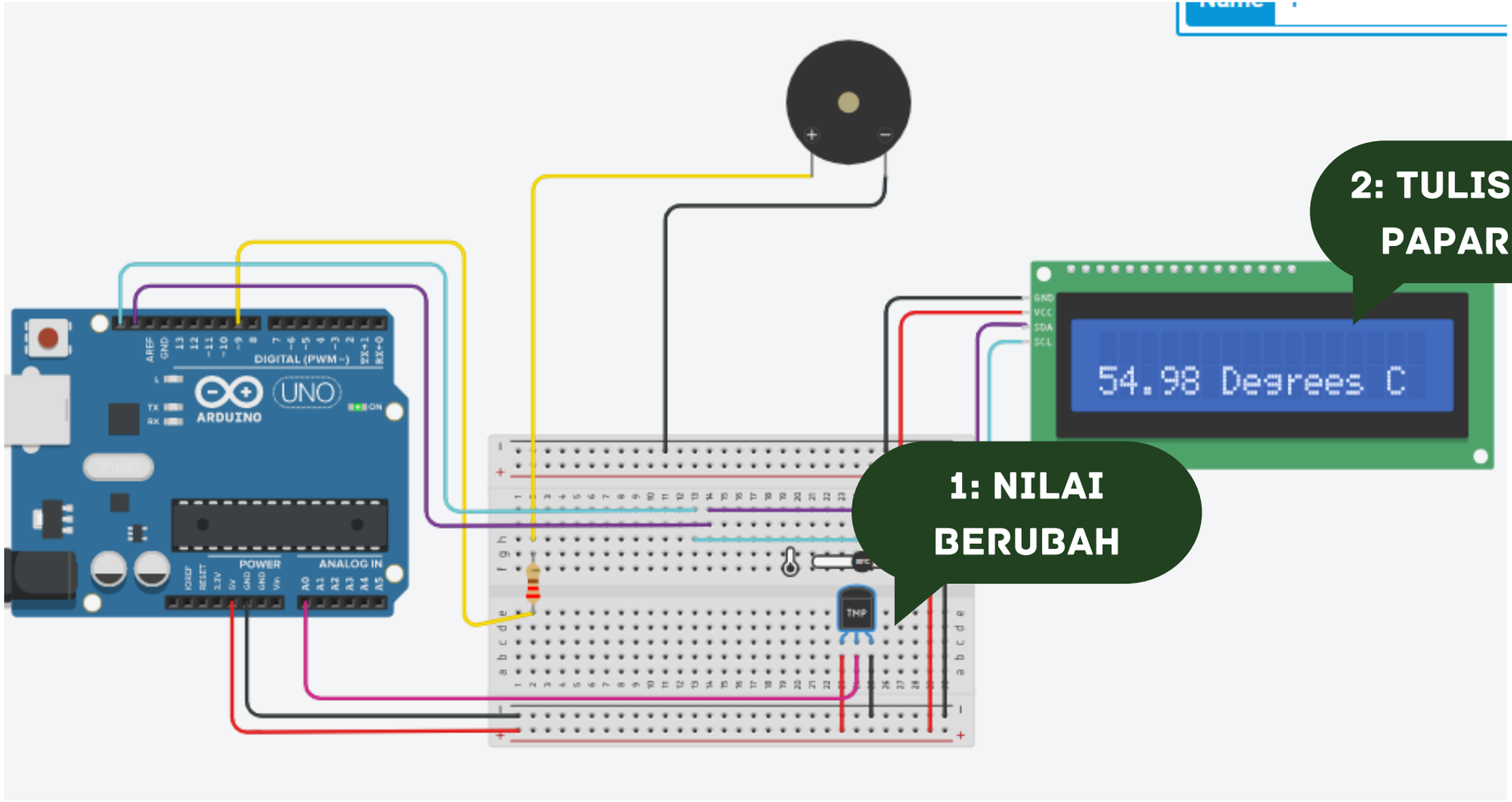
STEP 3 :
CODDING ARDUINO UNO

```
// C++ code
//
#include <Adafruit_LiquidCrystal.h>

int sensorPin = 0;
const int buzzer = 9; //buzzer to arduino pin 9

Adafruit_LiquidCrystal lcd_1(0);

void setup()
{
  lcd_1.begin(16, 2);

   pinMode(buzzer, OUTPUT); // Set buzzer - pin 9
as an output
}

void loop()
{
lcd_1.clear();
int reading = analogRead(sensorPin);
float voltage = reading * 5.0;
voltage /= 1024.0;
float temperatureC = (voltage - 0.5) * 100 ;
lcd_1.setCursor(0,1);
lcd_1.print(temperatureC);
lcd_1.println(" Degrees C ");
delay(10);
  if(temperatureC>30)
```

TEXT

```
    {
          tone(buzzer, 1000); // Send 1KHz sound
signal...
  delay(100);        // ...for 1 sec
  noTone(buzzer);     // Stop sound...
  delay(100);        // ...for 1sec
    }

}
```

STEP 4 :
SIMULASI


2: TULISAN DI PAPARKAN
54.98 Degrees C
1: NILAI BERUBAH
LINK TINKERCAD
ENTER