//#include <LiquidCrystal\_I2C.h>

//LiquidCrystal\_I2C lcd(0x27,16,2);

#include <Adafruit\_LiquidCrystal.h>

//int seconds = 0;

Adafruit\_LiquidCrystal lcd(0);

#define trigpin 3 //Pin trigger sensor ultrasonik

#define echopin 4 // pin echo sensor ultrasonik

int ledlow = 5; // Pin led RENDAH

int ledmiddle = 6; // Pin LED SEDANG

int ledhigh = 7; // PIN LED TINGGI

int buzzer = 8; //PIN BUZZER

int relaybahaya = 9; // PIN RELAY

void setup()

{

Serial.begin(9600);

lcd.begin(16, 2);

//INISIALISASI PIN ARDUINO SEBAGAI INPUT/OUTPU

pinMode(trigpin, OUTPUT);

pinMode(echopin, INPUT);

pinMode(ledlow, OUTPUT);

pinMode(ledmiddle, OUTPUT);

pinMode(ledhigh, OUTPUT);

pinMode(buzzer, OUTPUT);

pinMode(relaybahaya, OUTPUT);

digitalWrite(ledlow, LOW);

digitalWrite(ledmiddle, LOW);

digitalWrite(ledhigh, LOW);

digitalWrite(buzzer, LOW);

digitalWrite(relaybahaya, LOW);

delay(1000);

}

void loop()

{

int duration, distance;

digitalWrite(trigpin, HIGH);

delayMicroseconds(1000);

digitalWrite(trigpin, LOW);

duration = pulseIn(echopin,HIGH);

distance = ( duration / 2) / 29.1;

Serial.println("cm:");

Serial.println(distance);

lcd.setCursor(0,0);

lcd.print("Jarak = ");

lcd.print(distance); //Menampilkan jarak pada LCD I2C 16x2

lcd.print(" cm");

if( (distance > 0) && (distance <= 50) ) //BATAS AMBANG

{

digitalWrite(ledlow, LOW);

digitalWrite(ledmiddle, LOW);

digitalWrite(ledhigh, LOW);

digitalWrite(buzzer, HIGH);

digitalWrite(relaybahaya, HIGH);

lcd.setCursor(0,1);

lcd.print("Tangki Overload ");

} else

if( (distance > 50) && (distance <= 100) ) //LEVEL SANGAT TINGGI

{

digitalWrite(ledlow, LOW);

digitalWrite(ledmiddle, LOW);

digitalWrite(ledhigh, HIGH);

digitalWrite(buzzer, LOW);

digitalWrite(relaybahaya, LOW);

lcd.setCursor(0,1);

lcd.print("Level High 100% ");

} else

if( (distance > 100) && (distance <= 150) ) // LEVEL TINGGI

{

digitalWrite(ledlow, LOW);

digitalWrite(ledmiddle, LOW);

digitalWrite(ledhigh, HIGH);

digitalWrite(buzzer, LOW);

digitalWrite(relaybahaya, LOW);

lcd.setCursor(0,1);

lcd.print("Level High 80% ");

} else

if( (distance > 150) && (distance <= 200) ) // LEVEL TENGAH

{

digitalWrite(ledlow, LOW);

digitalWrite(ledmiddle, HIGH);

digitalWrite(ledhigh, LOW);

digitalWrite(buzzer, LOW);

digitalWrite(relaybahaya, LOW);

lcd.setCursor(0,1);

lcd.print("Level Middle 60% ");

} else

if( (distance > 200) && (distance <= 280) ) //LEVEL RENDAH

{

digitalWrite(ledlow, HIGH);

digitalWrite(ledmiddle, LOW);

digitalWrite(ledhigh, LOW);

digitalWrite(buzzer, LOW);

digitalWrite(relaybahaya, LOW);

lcd.setCursor(0,1);

lcd.print("Level Low 40% ");

} else

if( distance > 280 ) //LEVEL SANGAT RENDAH

{

digitalWrite(ledlow, HIGH);

digitalWrite(ledmiddle, LOW);

digitalWrite(ledhigh, LOW);

digitalWrite(buzzer, LOW);

digitalWrite(relaybahaya, LOW);

lcd.setCursor(0,1);

lcd.print("Level Low 20% ");

}

delay(500);

}