

Lampiran 1

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#include <Servo.h>
#include <Wire.h>
#include <LiquidCrystal_I2C.h>

LiquidCrystal_I2C lcd(0x27, 2, 1, 0, 4, 5, 6, 7, 3, POSITIVE);
Servo myservo;
int pos = 0;

const int trigPin1 = 9;
const int echoPin1 = 10;
const int trigPin2 = 5;
const int echoPin2 = 6;

long duration1;
long duration2;
int distance1;
int distance2;
int tonePin = 4;

void setup() {
  myservo.attach(8);
  pinMode(tonePin, OUTPUT);
  pinMode(trigPin1, OUTPUT);
  pinMode(echoPin1, INPUT);
  pinMode(trigPin2, OUTPUT);
  pinMode(echoPin2, INPUT);
  Serial.begin(9600);
  lcd.begin(16,2);

  for(int i = 0; i < 3; i++)
  {
    lcd.backlight();
    delay(250);
    lcd.noBacklight();
    delay(250);
  }
  lcd.backlight();

  lcd.setCursor(0,0);
  lcd.print("STMIK ATMA LUHUR");
  lcd.setCursor(0,1);
  lcd.print(" GARASI PINTAR ");

  for (pos = 25; pos <= 110; pos += 1) {
    myservo.write(pos);
    delay(0);
  }
}

void loop() {
  digitalWrite(trigPin1, LOW);
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delayMicroseconds(2);

digitalWrite(trigPin1, HIGH);
delayMicroseconds(10);
digitalWrite(trigPin1, LOW);

duration1 = pulseIn(echoPin1, HIGH);
distance1= duration1*0.034/2;

Serial.print("Sensor Belakang : ");
Serial.print(distance1);
Serial.println(" cm");

delay(10);

if(distance1 <=34 && distance1 >=21) {
  lcd.clear();
  lcd.setCursor(0,0);
  lcd.print("Jarak Aman ");
  lcd.print(distance1);
  lcd.print(" Cm");
  lcd.setCursor(0,1);
  lcd.print(">>> A M A N <<<");
} else if(distance1 <=20 && distance1 >=9) {
  lcd.clear();
  lcd.setCursor(0,0);
  lcd.print("Jarak Aman ");
  lcd.print(distance1);
  lcd.print(" Cm");
  lcd.setCursor(0,1);
  lcd.print(">>PELAN--PELAN<<");
} else if(distance1 <=8 && distance1 >=4) {
  lcd.clear();
  lcd.setCursor(0,0);
  lcd.print("Jarak Awas ");
  lcd.print(distance1);
  lcd.print(" Cm");
  lcd.setCursor(0,1);
  lcd.print("!!! WARNING !!!");
} else {
  lcd.setCursor(0,0);
  lcd.print("STMIK ATMA LUHUR");
  lcd.setCursor(0,1);
  lcd.print(" GARASI PINTAR");
}
digitalWrite(trigPin2, LOW);
delayMicroseconds(2);

digitalWrite(trigPin2, HIGH);
delayMicroseconds(10);

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digitalWrite(trigPin2, LOW);

duration2 = pulseIn(echoPin2, HIGH);

distance2= duration2*0.034/2;

Serial.print("Sensor Depan : ");
Serial.print(distance2);
Serial.println(" cm");
Serial.println("");

delay(10);

if (distance1 >= 10 && distance2 >= 1 && distance2 <= 25 && pos >=25) {
  for (pos = 110; pos >= 25; pos -= 1) {
    myservo.write(pos);
    delay(0);
  }
}

if (distance1 <=3 && pos <=110) {
  lcd.clear();
  lcd.setCursor(0,0);
  lcd.print("Jarak Awas ");
  lcd.print(distance1);
  lcd.print(" Cm");
  lcd.setCursor(0,1);
  lcd.print("!!! S T O P !!!");
  analogWrite(tonePin,2000);
  delay(3000);
  analogWrite(tonePin,0);
  for (pos = 25; pos <= 110; pos += 1) {
    myservo.write(pos);
    delay(0);
  }
}

if (distance1 <=3 && distance2 >=40 && pos <=110){
  for (pos = 110; pos >= 25; pos -= 1){
    myservo.write(pos);
    delay(0);
  }
}

if (distance1 >=10 && distance1 <=15 && pos >= 25) {
  for (pos = 110; pos >= 25; pos -= 1) {
    myservo.write(pos);
    delay(0);
  }
}

if (distance2 >=40 && distance1 >= 65 && pos <=110) {
  for (pos = 25; pos <= 110; pos += 1) {
    .....
  }
}

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    myservo.write(pos);
    delay(0);
  }
}
if(distance1 <=30 && distance1 >=21) {
  analogWrite(tonePin,200000);
  delay(150);
  analogWrite(tonePin,0);
} else if(distance1 <=20 && distance1 >=9) {
  analogWrite(tonePin,200000);
  delay(100);
  analogWrite(tonePin,0);
} else if(distance1 <=8 && distance1 >=4) {
  analogWrite(tonePin,200000);
  delay(50);
  analogWrite(tonePin,0);
} else {
  analogWrite(tonePin,0);
  delay(0);
}
}
```