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

Servo myservo;
int pos;
LiquidCrystal_I2C lcd(0x3F, 2, 1, 0, 4, 5, 6, 7); // 0x27 = alamat I2C modul
//LiquidCrystal_I2C lcd(0x27,2,1,0,4,5,6,7);

void setup()
{
  Serial.begin(9600);
  lcd.begin(16, 2); // LCD 16x2
  lcd.setBacklightPin(3, POSITIVE);
  lcd.setBacklight(HIGH);
  pinMode(4, INPUT);
  digitalWrite(4, HIGH);
  pinMode(5, INPUT);
  digitalWrite(5, HIGH);
  pinMode(6, INPUT);
  digitalWrite(6, HIGH);
  pinMode(8, INPUT);
  digitalWrite(8, HIGH);
  myservo.attach(7);
  myservo.writeMicroseconds(1500); // berhenti
}

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myservo.writeMicroseconds(1500); // berhenti
Wire.begin();

//*****pengenaln pembuat TA*****

lcd.begin(16, 2);
lcd.setCursor(0, 0);
lcd.print("Mesin Larut PCB");
lcd.setCursor(0, 1);
lcd.print("M IQBAL IHSAN ");
delay(3000);
lcd.clear();
}

//*****program utama*****
int counter15, counter20, counter25;
unsigned long timer15 = 0;
float counterupis;

void loop () {
  //==== program counting down, sesuai timer apa yang aktif
  if (millis() - timer15 >= 1000) {
    timer15 = millis();
    if (counter15 >= 1) {
      Serial.println("counter aktif 15 menit");
      counter15 = counter15 - 1;
      lcd.setCursor(0, 0);
    }
  }
}

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void loop () {
  //==== program counting down, sesuai timer apa yang aktif
  if (millis() - timeris >= 1000) {
    timeris = millis();
    if (counter15 >= 1) {
      Serial.println("counter aktif 15 menit");
      counter15 = counter15 - 1;
      lcd.setCursor(0, 0);
      lcd.print("timer 15 menit");
      Serial.println("LCD => timer 15 menit");
      lcd.setCursor(0, 1);
      lcd.print(counter15);
      lcd.print(" ");
      Serial.println("LCD => remaining " + String(counter15));
      myservo.writeMicroseconds(2000); // putar kiri
    }
    if (counter20 >= 1) {
      Serial.println("counter aktif 20 menit");
      counter20 = counter20 - 1;
      lcd.setCursor(0, 0);
      lcd.print("timer 20 menit");
      Serial.println("LCD => timer 20 menit");
      lcd.setCursor(0, 1);
      lcd.print(counter20);
      lcd.print(" ");
      Serial.println("LCD => remaining " + String(counter20));
      myservo.writeMicroseconds(2000); // putar kiri
    }
  }
}

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myservo.writeMicroseconds(2000); // putar kiri
}
if (counter25 >= 1) {
  Serial.println("counter aktif 25 menit");
  counter25 = counter25 - 1;
  lcd.setCursor(0, 0);
  lcd.print("timer 25 menit");
  Serial.println("LCD => timer 25 menit");
  lcd.setCursor(0, 1);
  lcd.print(counter25);
  lcd.print(" ");
  Serial.println("LCD => remaining " + String(counter25));
  myservo.writeMicroseconds(2000); // putar kiri
}
if (counter15 <= 0 && counter20 <= 0 && counter25 <= 0) {
  Serial.println("semua counter off");
  myservo.writeMicroseconds(1500); // berhenti
  lcd.setCursor(0, 0);
  lcd.print("silakan tekan");
  Serial.println("silakan tekan tombol");
  lcd.setCursor(0, 1);
  lcd.print("tombol ");
  lcd.print(" ");
}
Serial.println("-----");
}
//==== dibawah ini program baca tombol / input

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}  
}  
//== program reset counter  
if (digitalRead(8) == LOW) {  
  Serial.println(" Counter Reset >> Stop");  
  counter25 = 0; // 25 menit (60*25)  
  counter15 = 0;  
  counter20 = 0;  
  myservo.writeMicroseconds(1500); // berhenti  
  lcd.setCursor(0, 0);  
  lcd.print("Reset timer");  
  Serial.println("Sistem Stopped");  
  lcd.setCursor(0, 1);  
  lcd.print("Sistem Stopped");  
  lcd.print(" ");  
  delay(2000);  
}  
}
```

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```
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}  
//==== dibawah ini program baca tombol / input  
// jika ada counter down yang masih aktif tombol tidak berfungsi  
if (counter15 <= 0 && counter20 <= 0 && counter25 <= 0) {  
  //==== mengaktifkan counter down 15 menit  
  if (digitalRead(4) == LOW) {  
    Serial.println(" trigger 15 menit");  
    counter15 = 15 * 60; // 15 menit (60*15)  
    counter20 = 0;  
    counter25 = 0;  
    lcd.clear();  
  }  
  // mengaktifkan counter down 20 menit  
  if (digitalRead(5) == LOW) {  
    Serial.println(" trigger 20 menit");  
    counter20 = 20 * 60; // 20 menit (60*20);  
    counter15 = 0;  
    counter25 = 0;  
    lcd.clear();  
  }  
  //==== mengaktifkan counter down 25 menit  
  if (digitalRead(6) == LOW) {  
    Serial.println(" trigger 25 menit");  
    counter25 = 25 * 60; // 25 menit (60*25) // siubah brarti 1 menit ya?  
    counter15 = 0;  
    counter20 = 0;  
    lcd.clear();  
  }  
}
```

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