



PONOROGO



```
#include <Wire.h>
#include <LiquidCrystal_I2C.h>
#include "Sodaq_DS3231.h"
#include <NewPing.h>
#include <ESP8266WiFi.h>
#include <WiFiClientSecure.h>
#include <UniversalTelegramBot.h>
#include <Servo.h>

Servo servoPakan;
LiquidCrystal_I2C lcd(0x27, 16, 2);
char weekDay[][4] = {"Sun", "Mon", "Tue", "Wed", "Thu", "Fri", "Sat" };

char ssid[] = "Redmi 4x"; // your network SSID (name)
char password[] = "readadc03"; // your network key
String BOTtoken = "818257937:AAFnm3cg08E5ykVG57ZhZ3U_dp1iNoGTVs"; // your Bot Token (Get
from Botfather)
String chatid = "284488332";
//String message = "";
//#define BOTname "MonitoringPakan"
//#define BOTusername "MonitoringPakan_bot"
//HTTPClient http;
//IPAddress server(149, 154, 167, 200);
WiFiClientSecure client;
UniversalTelegramBot bot(BOTtoken, client);

#define trig D3
#define echo D0
#define MAX_DISTANCE 200
```

```
#define relay_konveyor D5
#define relay_air D6
#define relay_vaksin D7

int pilih,isiPakan,httpCode,isi;
float tinggiAir;
int menit,menit_buang,menit_bersih2,menit_vaksin,menit_spray;
int buka=135, tutup=170;
NewPing sonar(trig, echo, MAX_DISTANCE);
//DateTime dt(2019, 7, 8, 6, 36, 0, 1);

void setup() {
  // put your setup code here, to run once:
  Serial.begin(115200);
  servoPakan.attach(D8);
  Wire.begin();
  rtc.begin();
  lcd.begin();
  pinMode(relay_air, OUTPUT);
  pinMode(relay_konveyor, OUTPUT);
  pinMode(relay_vaksin, OUTPUT);
  digitalWrite(relay_air, HIGH);
  digitalWrite(relay_konveyor, HIGH);
  digitalWrite(relay_vaksin, HIGH);
  //rtc.setDateTime(dt); //Adjust date-time as defined 'dt' above
  //wifiConnecting();
  //bot.sendMessage(chatid,"SYSTEM AKTIF","");
  Serial.println("PESAN TERKIRIM");
  delay(1000);
```



```
lcd.clear();
}

void loop() {
  // put your main code here, to run repeatedly:
  jalan();

  //digitalWrite(relay_air, LOW);

  /*
  servoPakan.write(buka);
  delay(2000);
  servoPakan.write(tutup);
  delay(2000);

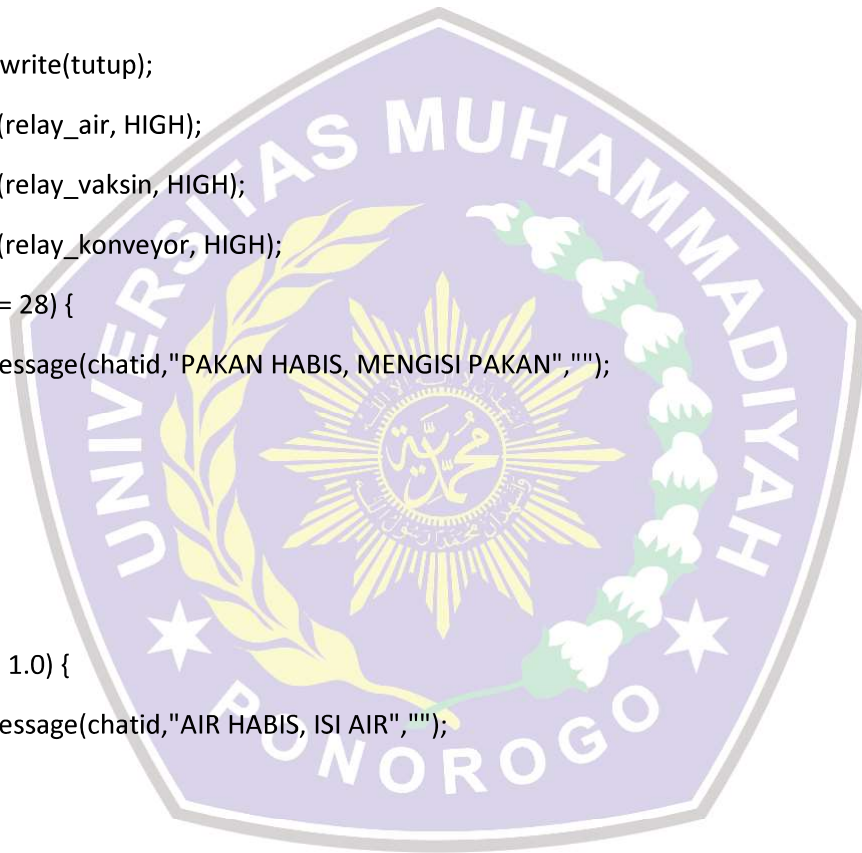
  digitalWrite(relay_vaksin, HIGH);
  digitalWrite(relay_konveyor, HIGH);
  delay(2000);
  digitalWrite(relay_air, HIGH);
  digitalWrite(relay_vaksin, HIGH);
  delay(2000);
  digitalWrite(relay_vaksin, LOW);
  digitalWrite(relay_konveyor, HIGH);
  digitalWrite(relay_air, HIGH);
  delay(2000);
  */
  //air();
  pakan();
  //waktu();
```





```
}
```

```
void jalan() {  
  switch(pilih) {  
    case 0:{  
      waktu();  
      pakan();  
      air();  
      servoPakan.write(tutup);  
      digitalWrite(relay_air, HIGH);  
      digitalWrite(relay_vaksin, HIGH);  
      digitalWrite(relay_konveyor, HIGH);  
      if(isiPakan >= 28) {  
        bot.sendMessage(chatid,"PAKAN HABIS, MENGISI PAKAN","");  
        lcd.clear();  
        pilih=1;  
        break;  
      }  
      if(tinggiAir < 1.0) {  
        bot.sendMessage(chatid,"AIR HABIS, ISI AIR","");  
        lcd.clear();  
        pilih=2;  
        break;  
      }  
      if(menit == menit_bersih2) {  
        bot.sendMessage(chatid,"MEMBERSIHKAN KOTORAN","");  
        lcd.clear();  
        menit_buang += 2;  
        menit_bersih2 += 3;
```



```

    pilih=3;
    break;
}
if(menit_bersih2 > 59) {
    menit_bersih2=0;
}
if(menit == menit_vaksin) {
    bot.sendMessage(chatid,"MELAKUKAN VAKSINASI","");
    lcd.clear();
    menit_spray += 1;
    menit_vaksin += 5;
    pilih=4;
    break;
}
if(menit_vaksin > 59) {
    menit_vaksin=0;
}
break;
}

case 1:{ //isi pakan
    lcd.setCursor(0,1);
    lcd.print(" ISI PAKAN! ");
    pakan();
    servoPakan.write(buka);
    if(isiPakan >= 25) {
        lcd.clear();
        pilih=0;
        break;
    }
}

```



```
}  
break;  
}
```

```
case 2:{ //isi air  
  lcd.setCursor(0,1);  
  lcd.print(" ISI AIR MINUM! ");  
  air();  
  digitalWrite(relay_air, LOW);  
  if(tinggiAir > 3.5) {  
    lcd.clear();  
    pilih=0;  
    break;  
  }  
  break;  
}
```

```
case 3:{ //buang kotoran  
  lcd.setCursor(0,0);  
  lcd.print("BERSIHKAN KOTORAN");  
  waktu();  
  digitalWrite(relay_konveyor, LOW);  
  if(menit > menit_buang) {  
    lcd.clear();  
    pilih=0;  
    break;  
  }  
  break;  
}
```



```
case 4:{
  lcd.setCursor(0,0);
  lcd.print("BERSIHKAN KOTORAN");
  waktu();
  digitalWrite(relay_vaksin, LOW);
  if(menit > menit_spray) {
    lcd.clear();
    pilih=0;
    break;
  }
  break;
}

}

}

void pakan() {
  isiPakan = sonar.ping_cm();
  delay(50); // Wait 50ms between pings (about 20 pings/sec). 29ms should be the shortest
             // delay between pings.
  lcd.setCursor(9,0);
  lcd.print("Pkn=");
  lcd.setCursor(13,0);
  lcd.print(isiPakan);
  Serial.print("Jarak=");
  Serial.println(isiPakan);
  if(isiPakan > 10) {
    isi=1;
  }
}
```





```
}  
if(isi==1 && isiPakan < 10) {  
    isi=0;  
    lcd.clear();  
}  
}
```

```
void air() {  
    tinggiAir = analogRead(A0)*0.01; //adc*panjang sensor*nilai maximum  
    lcd.setCursor(0,0);  
    lcd.print("Air=");  
    lcd.setCursor(4,0);  
    lcd.print(tinggiAir);  
    Serial.print("tinggiAir=");  
    Serial.println(analogRead(A0));  
}
```

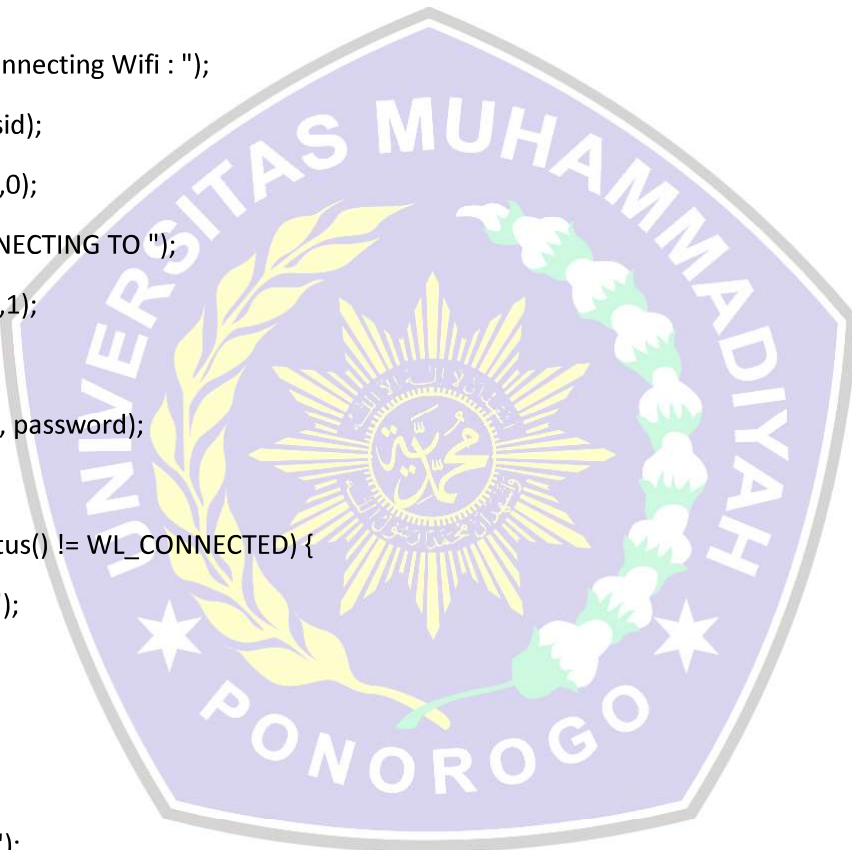
```
void waktu() {  
    DateTime now = rtc.now(); //get the current date-time  
    menit = now.minute();  
  
    lcd.setCursor(0,1);lcd.print(now.hour(), DEC);  
    lcd.setCursor(2,1);lcd.print(":");  
    lcd.setCursor(3,1);lcd.print(now.minute(), DEC);  
    lcd.setCursor(8,1);lcd.print(weekDay[now.dayOfWeek()]);  
    lcd.setCursor(12,1);lcd.print(now.date(), DEC);  
    lcd.setCursor(14,1);lcd.print("/");  
    lcd.setCursor(15,1);lcd.print(now.month(), DEC);  
    if(now.minute()==0) {lcd.clear();}
```



```
//Serial.print(now.hour(),DEC);Serial.print(":");  
//Serial.println(now.minute(),DEC);  
}
```

```
void wifiConnecting() {  
  WiFi.mode(WIFI_STA);  
  WiFi.disconnect();  
  delay(100);  
  Serial.print("Connecting Wifi : ");  
  Serial.println(ssid);  
  lcd.setCursor(0,0);  
  lcd.print("CONNECTING TO ");  
  lcd.setCursor(0,1);  
  lcd.print(ssid);  
  WiFi.begin(ssid, password);  
  
  while (WiFi.status() != WL_CONNECTED) {  
    Serial.print(".");  
    delay(500);  
  }  
}
```

```
Serial.println("");  
Serial.println("Wifi Connected");  
Serial.println("IP Address : ");  
Serial.println(WiFi.localIP());  
lcd.setCursor(0,1);  
lcd.print("WIFI CONNECTED");  
}
```



```
void setup() {  
  // put your setup code here, to run once:  
  
}  
  
void loop() {  
  // put your main code here, to run repeatedly:  
  
}
```

