25,26,27-

ULTRASONIC SENSOR

const int trigPin = 9;

const int echoPin = 10;

long duration;

int distance;

void setup() {

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);

Serial.begin(9600);

}

void loop() {

digitalWrite(trigPin, LOW);

delayMicroseconds(2);

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

duration = pulseIn(echoPin, HIGH);

distance= duration\*0.034/2;

Serial.print("Distance: ");

Serial.println(distance);

}

(2) #include <Servo.h>

Servo myservo;

void setup() {

myservo.attach(9,600,2300);

}

void loop() {

myservo.write(0);

delay(1000);

myservo.write(90);

delay(500);

myservo.write(135);

delay(500);

myservo.write(180);

delay(1500);

}

(3) #include <Stepper.h>

#define STEPS 32

Stepper stepper(STEPS, 8, 10, 9, 11);

int val = 0;

void setup() {

Serial.begin(9600);

stepper.setSpeed(200);

}

void loop() {

if (Serial.available()>0)

{

val = Serial.parseInt();

stepper.step(val);

Serial.println(val);

}

}

(4) int redLed = 12;

int greenLed = 11;

int buzzer = 10;

int smokeA0 = A5;

int sensorThres = 400;

void setup() {

pinMode(redLed, OUTPUT);

pinMode(greenLed, OUTPUT);

pinMode(buzzer, OUTPUT);

pinMode(smokeA0, INPUT);

Serial.begin(9600);

}

void loop() {

int analogSensor = analogRead(smokeA0);

Serial.print("Pin A0: ");

Serial.println(analogSensor);

if (analogSensor > sensorThres)

{

digitalWrite(redLed, HIGH);

digitalWrite(greenLed, LOW);

tone(buzzer, 1000, 200);

}

else

{

digitalWrite(redLed, LOW);

digitalWrite(greenLed, HIGH);

noTone(buzzer);

}

delay(100);

}

(5) HUMIDITY SENSOR

#include <dht.h>

dht DHT;

#define DHT11\_PIN 7

void setup(){

Serial.begin(9600);

}

void loop()

{

int chk = DHT.read11(DHT11\_PIN);

Serial.print("Temperature = ");

Serial.println(DHT.temperature);

Serial.print("Humidity = ");

Serial.println(DHT.humidity);

delay(1000);

}

(6) TEMPERATURE SENSOR

float temp;

int tempPin = 0;

void setup() {

Serial.begin(9600);

}

void loop() {

temp = analogRead(tempPin);

temp = temp \* 0.48828125;

// convert the analog volt to its temperature equivalent

Serial.print("TEMPERATURE = ");

Serial.print(temp);

Serial.print("\*C");

Serial.println();

delay(1000);

}

(7) int sensor\_pin = A0;

int output\_value ;

void setup() {

Serial.begin(9600);

Serial.println("Reading From the Sensor ...");

delay(2000);

}

void loop() {

output\_value= analogRead(sensor\_pin);

output\_value = map(output\_value,550,10,0,100);

Serial.print("Mositure : ");

Serial.print(output\_value);

Serial.println("%");

delay(1000);

}

(8) const int cD = 4;

const int cA = A0;

int val\_analogique;

void setup()

{

pinMode(cD, INPUT);

pinMode(cA, INPUT);

Serial.begin(9600);

}

void loop()

{

if(digitalRead(cD) == LOW)

{

Serial.println("Digital value : wet");

delay(10);

}

else

{

Serial.println("Digital value : dry");

delay(10);

}

val\_analogique=analogRead(cA);

Serial.print("Analog value : ");

Serial.println(val\_analogique);

Serial.println("");

delay(1000);

}

(9) int sensorPin = A0;

int sensorValue = 0;

void setup() {

Serial.begin(9600);

}

void loop() {

sensorValue = analogRead(sensorPin);

Serial.println(sensorValue);

delay(100);

}

(10) int pirSensor = 8;

int relayInput = 7;

void setup() {

pinMode(pirSensor, INPUT);

pinMode(relayInput, OUTPUT);

}

void loop() {

int sensorValue = digitalRead(pirSensor);

if (sensorValue == 1) {

digitalWrite(relayInput, LOW);

}

}

(11) const int buzzer = 9;

void setup(){

pinMode(buzzer, OUTPUT);

}

void loop(){

tone(buzzer, 1000);

delay(1000);

noTone(buzzer);

delay(1000);

}

(12) const int rs = 12, en = 11, d4 = 5, d5 = 4, d6 = 3, d7 = 2;

LiquidCrystal lcd(rs, en, d4, d5, d6, d7);

void setup() {

lcd.begin(16, 2);

lcd.print("hello, world!");

}

void loop() {

lcd.noDisplay();

delay(500);

lcd.display();

delay(500);

}