int led = 13;

int button = 12;

int buttonvalue = 0;

int motionsensor = 8;

int motionvalue = 0;

int trigger = 7;

int echo = 4;

int duration = 0;

int distance = 0;

void setup ()

{

pinMode(led, OUTPUT);

pinMode(button, INPUT);

pinMode (motionsensor, INPUT);

pinMode(trigger, OUTPUT);

pinMode(echo, INPUT);

}

void loop ()

{

digitalWrite(led, HIGH);

delay(1000);

digitalWrite(led, 1000);

delay(1000);

buttonvalue = digitalRead (button);

if(buttonvalue==HIGH) {

digitalWrite (led, HIGH);

delay(1000);

}

else {

digitalWrite (led, LOW);

delay(1000);

}

motionvalue = digitalRead (motionsensor);

if(motionvalue==HIGH) {

digitalWrite (led, HIGH);

delay (1000);

}

else {

digitalWrite (led, LOW);

delay (1000);

}

digitalWrite(trigger, LOW);

delayMicroseconds(2);

digitalWrite(trigger, HIGH);

delayMicroseconds(10);

digitalWrite(trigger, LOW);

duration = pulseIn (echo, HIGH);

distance = duration\*0.0342/2;

if(distance<70) {

digitalWrite (led, HIGH);

delay (1000);

}

else {

digitalWrite (led, LOW);

delay (1000);

}

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// Define pin numbers

#define trigPin 9

#define echoPin 10

#define pirPin 2

#define ledPin 13

// Define variables

long duration;

int distance;

bool motionDetected = false;

void setup() {

// Set pin modes

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);

pinMode(pirPin, INPUT);

pinMode(ledPin, OUTPUT);

// Initialize serial communication

Serial.begin(9600);

}

void loop() {

// Measure distance using ultrasonic sensor

digitalWrite(trigPin, LOW);

delayMicroseconds(2);

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

duration = pulseIn(echoPin, HIGH);

distance = duration \* 0.034 / 2;

// Check if motion is detected using PIR sensor

if (digitalRead(pirPin) == HIGH) {

motionDetected = true;

} else {

motionDetected = false;

}

// Turn on LED if either the distance is less than 50cm or motion is detected

if (distance < 50 || motionDetected) {

digitalWrite(ledPin, HIGH);

} else {

digitalWrite(ledPin, LOW);

}

// Print distance and motion detection status to serial monitor

Serial.print("Distance: ");

Serial.print(distance);

Serial.print(" cm");

Serial.print("\tMotion detected: ");

Serial.println(motionDetected);

// Wait for 100 milliseconds before taking another measurement

delay(100);

}

const int trig = 12;

const int echo = 13;

const int LED1 = 8;

const int LED2 = 7;

const int LED3 = 6;

const int LED4 = 5;

const int LED5 = 4;

const int LED6 = 3;

const int LED7 = 2;

int duration = 0;

int distance = 0;

void setup()

{

pinMode(trig , OUTPUT);

pinMode(echo , INPUT);

pinMode(LED1 , OUTPUT);

pinMode(LED2 , OUTPUT);

pinMode(LED3 , OUTPUT);

pinMode(LED4 , OUTPUT);

pinMode(LED5 , OUTPUT);

pinMode(LED6 , OUTPUT);

pinMode(LED7 , OUTPUT);

Serial.begin(9600);

}

void loop()

{

digitalWrite(trig , HIGH);

delayMicroseconds(1000);

digitalWrite(trig , LOW);

duration = pulseIn(echo , HIGH);

distance = (duration/2) / 28.5 ;

Serial.println(distance);

if ( distance <= 7 )

{

digitalWrite(LED1, HIGH);

}

else

{

digitalWrite(LED1, LOW);

}

if ( distance <= 14 )

{

digitalWrite(LED2, HIGH);

}

else

{

digitalWrite(LED2, LOW);

}

if ( distance <= 21 )

{

digitalWrite(LED3, HIGH);

}

else

{

digitalWrite(LED3, LOW);

}

if ( distance <= 28 )

{

digitalWrite(LED4, HIGH);

}

else

{

digitalWrite(LED4, LOW);

}

if ( distance <= 35 )

{

digitalWrite(LED5, HIGH);

}

else

{

digitalWrite(LED5, LOW);

}

if ( distance <= 42 )

{

digitalWrite(LED6, HIGH);

}

else

{

digitalWrite(LED6, LOW);

}

if ( distance <= 49 )

{

digitalWrite(LED7, HIGH);

}

else

{

digitalWrite(LED7, LOW);

}

}