int trigPin = 5;

int echoPin = 6;

int motorPin0 = 4;

int motorPin1 = 9;

long duration;

int distance;

void setup() {

unsigned int t;

pinMode(echoPin,INPUT);

pinMode(trigPin,OUTPUT);

pinMode(motorPin0,OUTPUT);

pinMode(motorPin1,OUTPUT);

digitalWrite(motorPin0,LOW);

Serial.begin(9600);

}

void loop() {

digitalWrite(trigPin,LOW);

delayMicroseconds(10);

digitalWrite(trigPin,HIGH);

delayMicroseconds(10);

digitalWrite(trigPin,LOW);

duration = pulseIn(echoPin,HIGH);

distance = duration\*0.034/2;

Serial.print("Distance = ");

Serial.println(distance);

delay(10);

if(distance < 10)

{

delay(10);

do

{

delay(10);

digitalWrite(trigPin,LOW);

delayMicroseconds(10);

digitalWrite(trigPin,HIGH);

delayMicroseconds(10);

digitalWrite(trigPin,LOW);

duration = pulseIn(echoPin,HIGH);

distance = duration\*0.034/2;

Serial.print("Distance = ");

Serial.println(distance);

digitalWrite(motorPin0,LOW);

digitalWrite(motorPin1,HIGH);

Serial.println("Reverse");

}while(distance < 50);

}

else if(distance > 50)

{

delay(10);

do

{

delay(10);

digitalWrite(trigPin,LOW);

delayMicroseconds(10);

digitalWrite(trigPin,HIGH);

delayMicroseconds(10);

digitalWrite(trigPin,LOW);

duration = pulseIn(echoPin,HIGH);

distance = duration\*0.034/2;

Serial.print("Distance = ");

Serial.println(distance);

digitalWrite(motorPin1,LOW);

digitalWrite(motorPin0,HIGH);

Serial.println("Forward");

}while(distance > 10);

}

}

