#include <LiquidCrystal.h>// initialize the library with the numbers of the interface pins

LiquidCrystal lcd(2, 3, 4, 5, 6, 7);

#define e\_s1 A0 //echo pin

#define t\_s1 A1 //Trigger pin

#define e\_s2 A2 //echo pin

#define t\_s2 A3 //Trigger pin

int ir=9;

bool data;

int relay = 8; // Out for light

long dis\_a=0,dis\_b=0;

int flag1=0, flag2=0;

int person = 0;

//\*ultra\_read\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

void ultra\_read(int pin\_t,int pin\_e,long &ultra\_time){

long time;

pinMode(pin\_t,OUTPUT);

pinMode(pin\_e,INPUT);

digitalWrite(pin\_t,LOW);

delayMicroseconds(2);

digitalWrite(pin\_t,HIGH);

delayMicroseconds(10);

time=pulseIn (pin\_e,HIGH);

ultra\_time = time / 29 / 2;

}

void setup(){

Serial.begin(9600);// initialize serial communication at 9600 bits per second:

pinMode(relay, OUTPUT);

pinMode(ir,INPUT);

lcd.begin(16, 2);

lcd.setCursor(0, 0);

lcd.print(" Welcome ");

delay(1000); // Waiting for a while

lcd.clear();

}

void loop(){

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

ultra\_read(t\_s1,e\_s1,dis\_a);delay(30);

ultra\_read(t\_s2,e\_s2,dis\_b);delay(30);

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

data=digitalRead(ir);

Serial.print("da:");Serial.println(dis\_a);

Serial.print("db:");Serial.println(dis\_b);

Serial.println(data);

if(dis\_a<90 && flag1==0){flag1=1;

if(flag2==0){person = person+1;}

}

if(data==0 && flag2==0){flag2=1;

if(flag1==0){person = person-1;}

}

if(dis\_a>90 && data==1 && flag1==1 && flag2==1){

flag1=0, flag2=0;

delay(1000);

}

lcd.setCursor(0, 0);

lcd.print("Have Person: ");

lcd.print(person);

lcd.print(" ");

lcd.setCursor(0,1);

lcd.print("Light is ");

if(person>0){digitalWrite(relay,HIGH); lcd.print("On ");}

else{digitalWrite(relay,LOW); lcd.print("Off");}

}