#include<SoftwareSerial.h>//for bluethooth and wifi module

#define ir\_out1 6//ir sensor-1;

#define ir\_out2 7//ir sensor-2

SoftwareSerial bt(2,3);//(Rx,Tx)//the bluetooth pins

SoftwareSerial wifi(4,5);//(Rx,Tx)//wifi pins

String wifiname="helloo";

String pass="bye";

String data;

int res1,res2;

void setup() {

// put your setup code here, to run once:

pinMode(ir\_out1,INPUT);

pinMode(ir\_out2,INPUT);

bt.begin(9600);

wifi.begin(9600);

Serial.begin(9600);

espcmd("AT+RST");//attention command to reset the wifi module

espcmd("AT+CWMODE=1");//wifi module acts as a client

espcmd("AT+CWJAP=\""+wifiname+"\",\""+pass+"\"");//attention command to connect to local wifi network

while(!wifi.find("OK")){

//becomes false and exits the loop only after the wifi module is connected

}

delay(1000);

}

void loop() {

// put your main code here, to run repeatedly:

res1=digitalRead(ir\_out1);//reads output from the first ir sensor

res1=digitalRead(ir\_out2);//reads output from the second ir sensor

if(res1==1){

light\_on();//user defined function to turn on lights

}

else if(res2==1){

light\_off();//user defined function to turn off lights

}

}

void light\_on(){//user defined function to turn on lights

espcmd("AT+CIPMUX");//attention command to specify number of devises to be connected

espcmd("AT+CIPSTART=\"TCP\",\"api.thingspeak.com\",80");//adhress of the cloud we are using

String data="/update?api\_key=EG23Y36D9LLC1KRJ&field1=1";//read api key given by the cloud

espcmd("AT+CIPSEND="+String(data.length()+2));//attention comman to send data

wifi.find(">");

wifi.println(data);

espcmd("AT+CIPCLOSE=0");

delay(1000);

}

void light\_off(){//user defined function to turn off lights

espcmd("AT+CIPMUX");

espcmd("AT+CIPSTART=\"TCP\",\"api.thingspeak.com\",80");//adhress of the cloud we are using

data="/update?api\_key=EG23Y36D9LLC1KRJ&field2=1";//read api key given by the cloud

espcmd("AT+CIPSEND="+String(data.length()+2));//attention comman to send data

wifi.find(">");

wifi.println(data);

espcmd("AT+CIPCLOSE=0");

delay(1000);

}

void espcmd(String cmd){//function to write in the esp monitor

wifi.println(cmd);//used to print in the esp monitor

delay(1000);

}