   IBM ASSIGNMENT -1

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Smart Home Automation System Using IoT:

Code:

#include<Servo.h>

const int pingPin = 2;

int servoPin = 3;

Servo servo;

void setup() {

// initialize serial communication:

Serial.begin(9600);

servo.attach(servoPin);

pinMode(4,INPUT);

pinMode(5,OUTPUT);

pinMode(11,OUTPUT);

pinMode(12,OUTPUT);

pinMode(13,OUTPUT);

pinMode(A0,INPUT);

digitalWrite(12,LOW);

digitalWrite(11,HIGH);

}

void loop() {

long duration, inches, cm;

pinMode(pingPin, OUTPUT);

digitalWrite(pingPin, LOW);

delayMicroseconds(2);

digitalWrite(pingPin, HIGH);

delayMicroseconds(5);

digitalWrite(pingPin, LOW);

pinMode(pingPin, INPUT);

duration = pulseIn(pingPin, HIGH);

//inches = microsecondsToInches(duration);

//cm = microsecondsToCentimeters(duration);

//SERVO MOTOR -

servo.write(0);

if(cm < 60)

{

servo.write(45);

delay(5000);

}

servo.write(0);

// PIR with LED starts -

int pir = digitalRead(4);

if(pir == HIGH)

{

digitalWrite(5,LOW);

delay(1000);

}

else if(pir == LOW)

{

digitalWrite(5,LOW);

}

//TEMP with FAN -

float value=analogRead(A0);

float temperature=value\*0.48;

Serial.println("temperature");

Serial.println(temperature);

if(temperature > 30)

{

digitalWrite(12,LOW);

digitalWrite(13,HIGH);

}

else

{

digitalWrite(12,LOW);

digitalWrite(13,LOW);

}

}