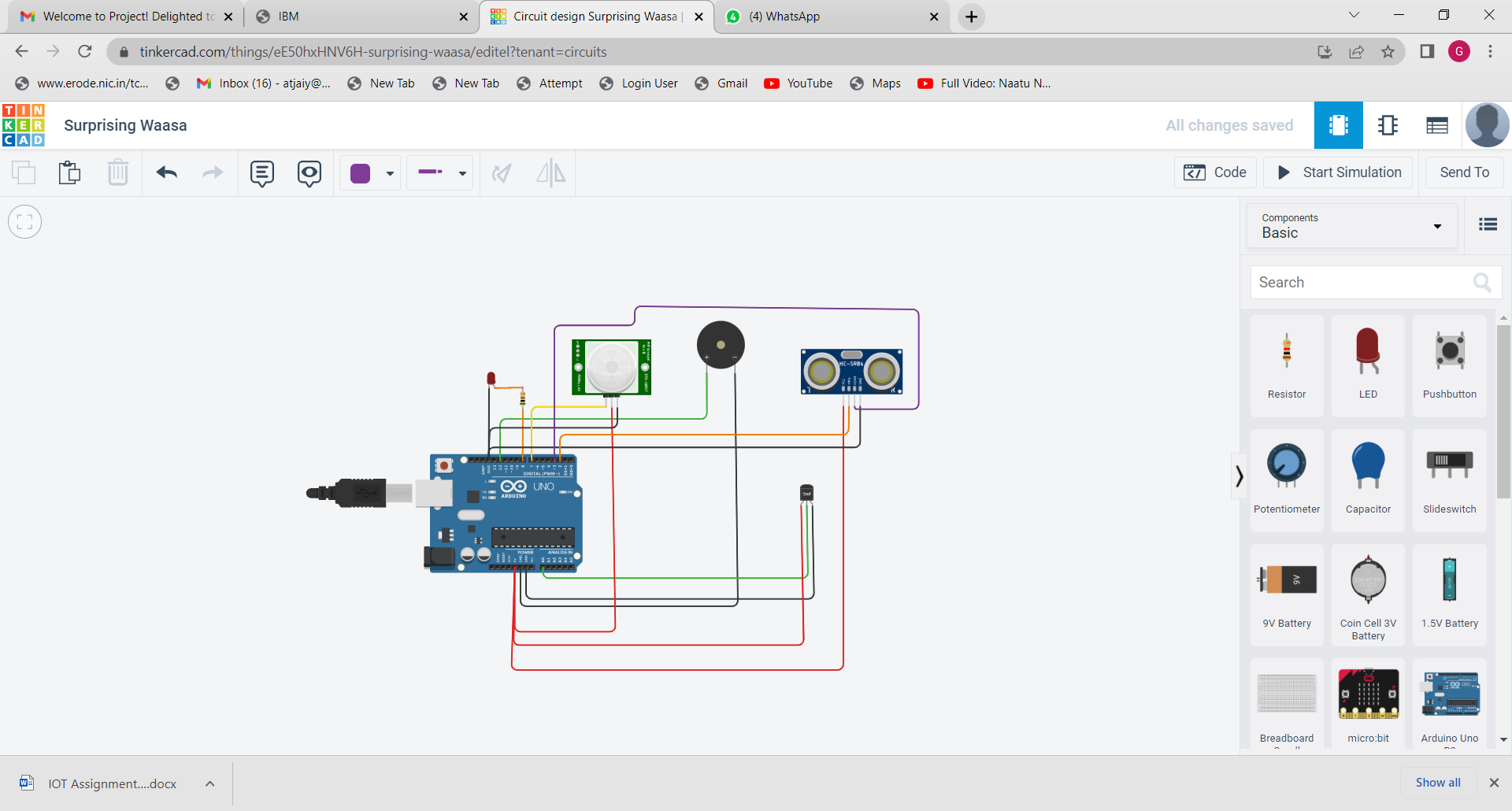
NALAIYATHIRAN

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# IoT Assignment 1: HOME AUTOMATION:

## Circuit Diagram:



## Code:

int t=2;

int e=3;

void setup(){

Serial.begin(9600);

pinMode(t,OUTPUT);

pinMode(e,INPUT);

pinMode(12,OUTPUT);

}

void loop(){

//ultrasonic sensor

digitalWrite(t,LOW);

digitalWrite(t,HIGH);

delayMicroseconds(10);

digitalWrite(t,LOW);

float dur=pulseIn(e,HIGH);

float dis=(dur\*0.0343)/2;

Serial.print("Distance is: ");

Serial.println(dis);

//LED ON

if(dis>=100) {

digitalWrite(8,HIGH);

digitalWrite(7,HIGH);

}

//Buzzer For ultrasonic Sensor

if(dis>=100) {

for(int i=0; i<=30000; i=i+10) {

tone(12,i);

delay(1000);

noTone(12);

delay(1000);

}

}

//Temperate Sensor

double a= analogRead(A0);

double t=(((a/1024)\*5)-0.5)\*100;

Serial.print("Temp Value: ");

Serial.println(t);

delay(1000);

//LED ON

if(t>=100) {

digitalWrite(8,HIGH);

digitalWrite(7,HIGH);

}

//Buzzer for Temperature Sensor

if(t>=100) {

for(int i=0; i<=30000; i=i+10) {

tone(12,i);

delay(1000);

noTone(12);

delay(1000);

}

}

//LED OFF

if(t<100) {

digitalWrite(8,LOW);

digitalWrite(7,LOW);

}

//Pir Sensor

int motion=digitalRead(8);

if(motion==1){

Serial.println("Motion is detected");

digitalWrite(12,HIGH);

delay(5000);

}

else{

Serial.println("No Motion");

digitalWrite(12,LOW);

}

//Buzzer For PIR sensor

if(motion==1) {

for(int i=0; i<=30000; i=i+10) {

tone(12,i);

delay(1000);

noTone(12);

delay(1000);

}

}

}