IBM (NALAIYA THIRAN)

ASSIGNMENT NO : 1

TEAM LEADER : Sadhana shri Dharmarajan

TEAM ID: PNT2022TMID50604

REG NO : 952819106021

EMAIL : [jayshreedharmarajan@gmail.com](mailto:jayshreedharmarajan@gmail.com)

QUESTION:

Make a Smart Home in Tinkercad, using 2+ sensors, Led, Buzzer in single code and circuit.

CODE:

int trigger\_pin=2;

int echo\_pin=3;

int time;

int distance;

void setup()

{

Serial.begin(9600);

pinMode(trigger\_pin,OUTPUT);

pinMode(echo\_pin,INPUT);

pinMode(4,INPUT);

pinMode(13,OUTPUT);

}

void loop()

{

digitalWrite(trigger\_pin,HIGH);

delayMicroseconds(10);

digitalWrite(trigger\_pin,LOW);

time=pulseIn(echo\_pin,HIGH);

distance=(time\*0.034)/2;

if(distance<=10)

{

Serial.println("Door open");

Serial.print("Distance=");

Serial.println(distance);

delay(500);

}

else

{

Serial.println("Door closed");

Serial.print("Distance=");

Serial.println(distance);

delay(500);

int p=digitalRead(4);

if(p)

{

digitalWrite(13,HIGH);

Serial.println("motion detected");

}

else

{

digitalWrite(13,LOW);

Serial.println("not detected");

}

}

}

CIRCUIT DIAGRAM:

