**ASSIGNMENT 1**

**TOPIC: SMART HOME APPLIANCE FOR DOOR**

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**Program:**

int t=4;

int e=3;

int b=10;

int time;

int distance;

void setup()

{

pinMode(8,OUTPUT);

pinMode(3,INPUT);

pinMode(4,OUTPUT);

pinMode(10,OUTPUT);

Serial.begin(9600);

}

void loop()

{

digitalWrite(t, HIGH);

delayMicroseconds(10);

digitalWrite(t, LOW);

delayMicroseconds(10);

time=pulseIn(e,HIGH);

distance=(time\*0.034)/2;

if(distance<=100)

{

Serial.print("Distance= ");

Serial.println(distance);

digitalWrite(8,HIGH);

delay(10);

digitalWrite(10,LOW);

delay(10);

}

else

{

Serial.print("Distance= ");

Serial.println(distance);

digitalWrite(8,LOW);

delay(10);

digitalWrite(10,HIGH);

delay(10);

}

}

**Circuit Design**

