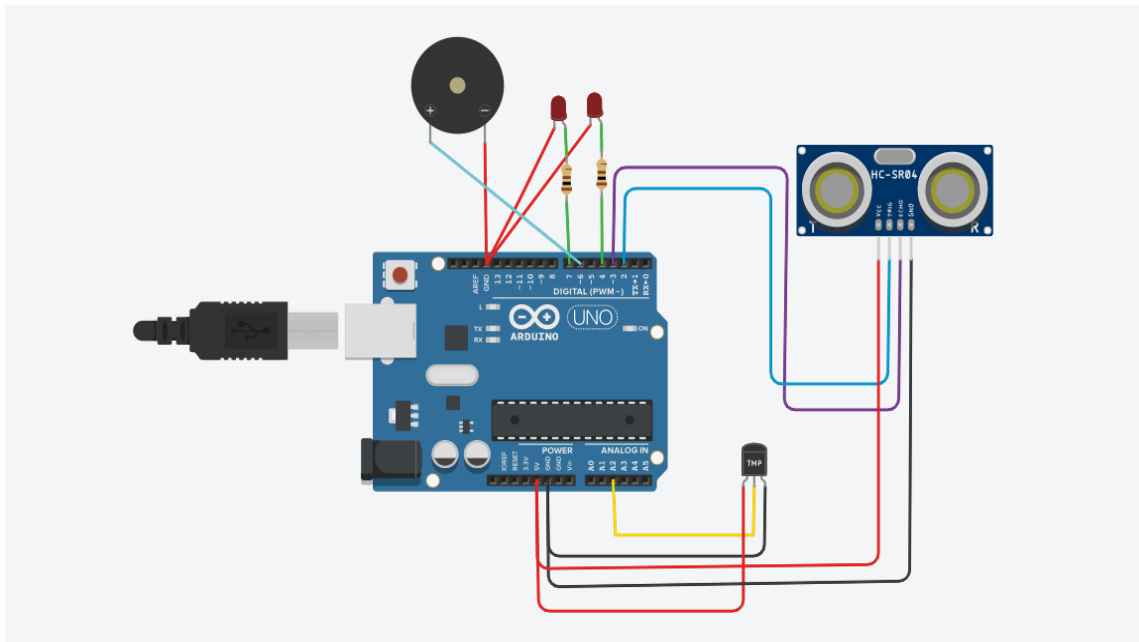


Date	15 September 2022
Student Name	ARSHA VARSHINEE.V
Student Register Number/Roll Number	211419106034/2019PECEC115
Maximum Marks	2 Marks

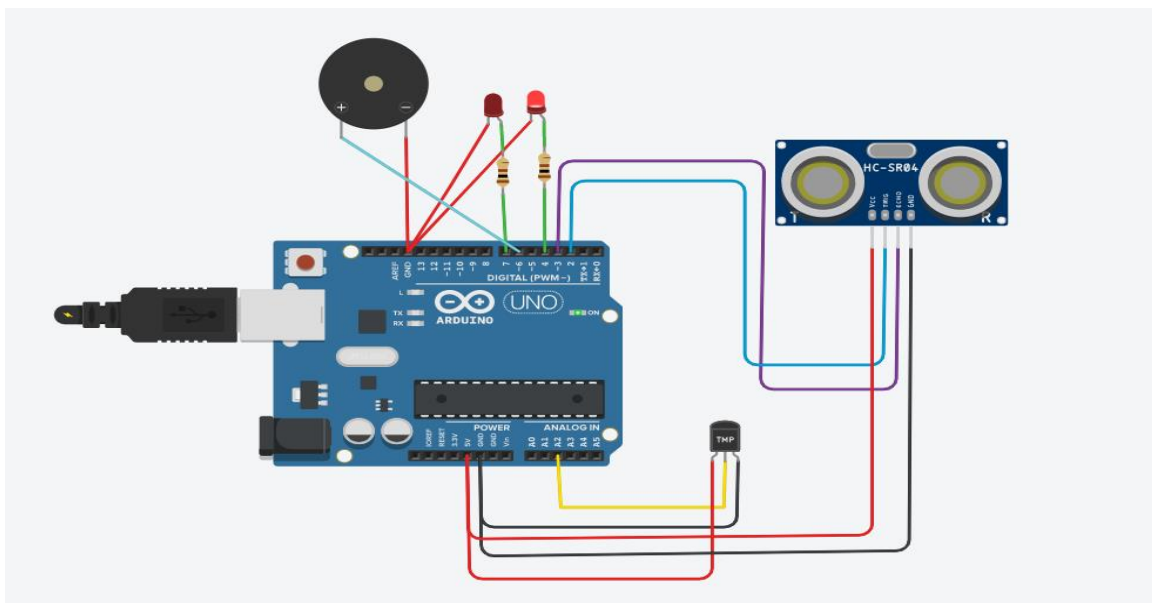
## ASSIGNMENT-I

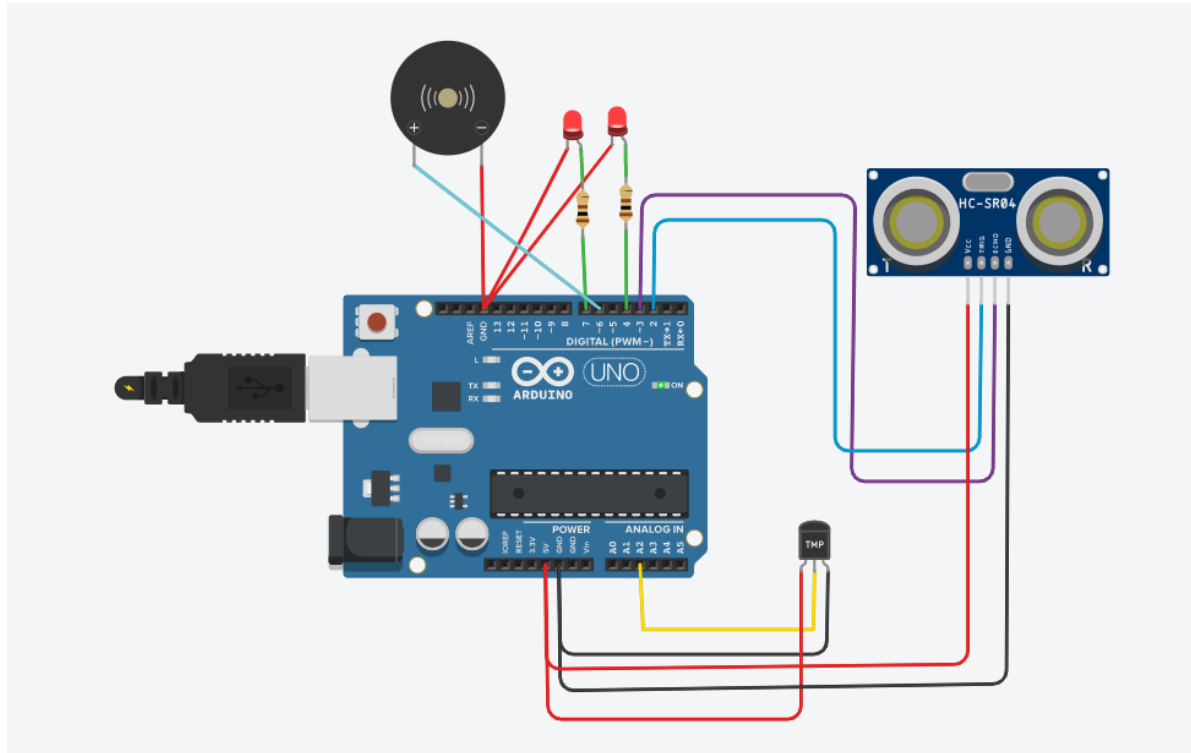
### SMART HOME

### CIRCUIT:



### SIMULATION:



**CODE:( C++ code)**

```
int trig = 2;
int echo = 3;
int led=4;
int buz=6;
int led1=7;
void setup()
{
  Serial.begin(9600);
  pinMode(trig,OUTPUT);
  pinMode(echo,INPUT);
  pinMode(led,OUTPUT);
  pinMode(led1,OUTPUT);
  pinMode(buz,OUTPUT);
}
void loop()
{
  // temperature sensor
  double t = analogRead(A2);
  Serial.print("Analog data: ");
  Serial.println(t);
```

NAME:ARSHA VARSHINEE.V

REG.NO.:211419106034

```
double n= t/1024;

double v=n*5;

Serial.print("Voltage data: ");

Serial.println(v);

double c=v-0.5;

double k=v*100;

Serial.print("Temperature value:");

Serial.println(k);

delay(1000);

//ultrasonic sensor

digitalWrite(trig,LOW);

digitalWrite(trig,HIGH);

delayMicroseconds(10);

digitalWrite(trig,LOW);

float dur=pulseIn(echo,HIGH);

float dist=(dur*0.0343)/2;

Serial.print("Distance in cm : ");

Serial.println(dist);

//led

if(dist>=100)

{

    digitalWrite(led,HIGH);

}

else

{

    digitalWrite(led,LOW);

}

//buzzer

digitalWrite(buz,LOW);

digitalWrite(led1,LOW);

delay(1000);

digitalWrite(buz,HIGH);

digitalWrite(led1,HIGH);

delay(1000);}
```