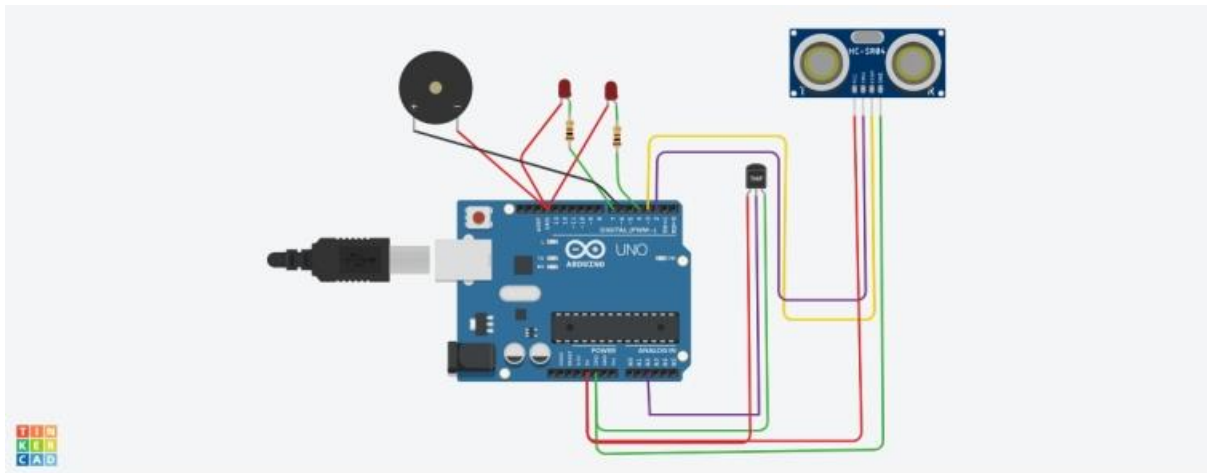


Assignment -1
Python Programming

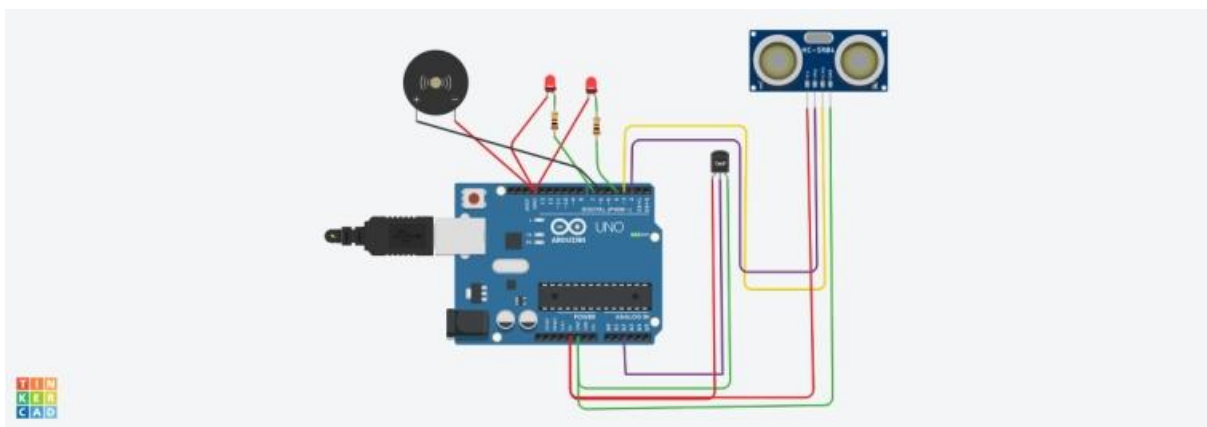
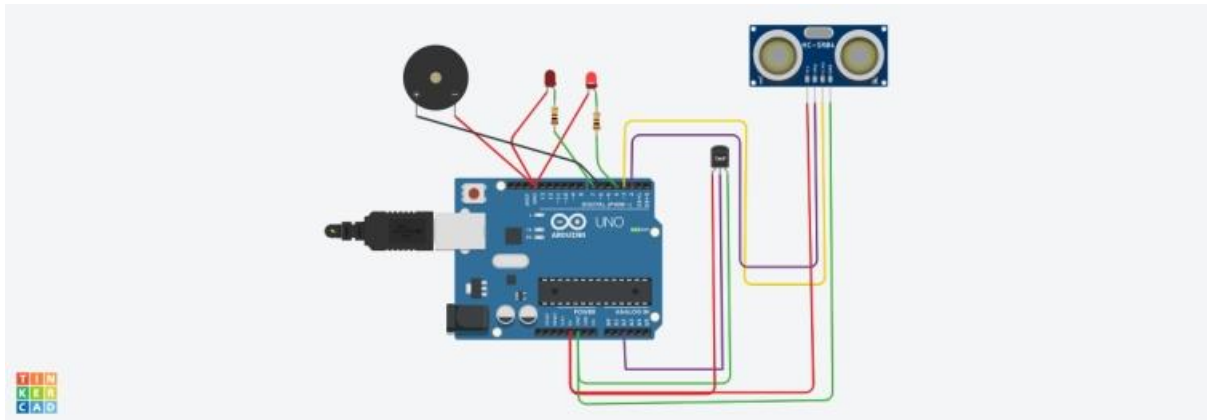
Assignment Date	09 September 2022
Student Name	Divyavarshini k k
Student Roll Number	211419106077
Maximum Marks	2 Marks

SMART HOME USING TINKERCAD

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);  
  
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);  
  
//ultasonic 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);  
}
```

