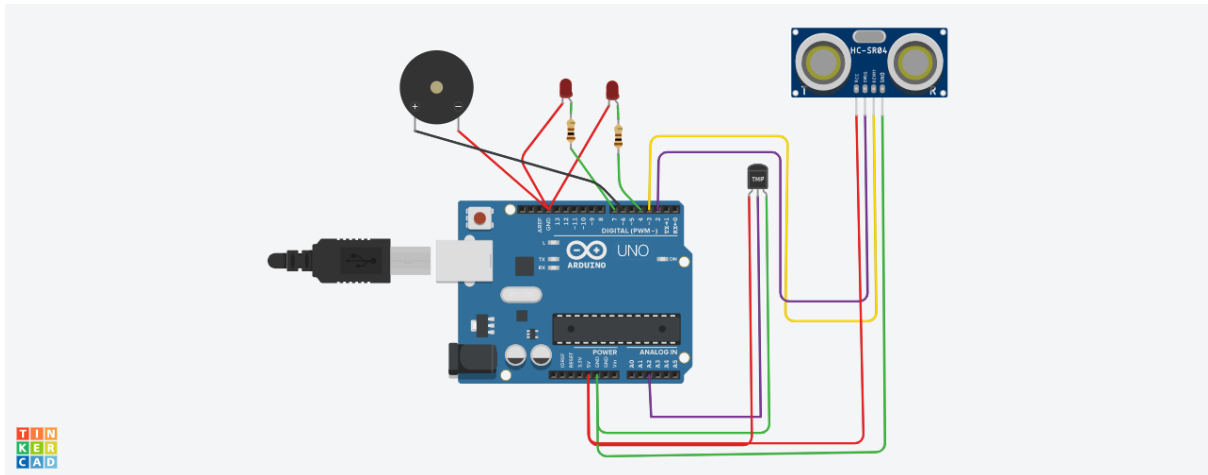**NAME:** KAVIYA.N   **REG. NO.:** 211419106127
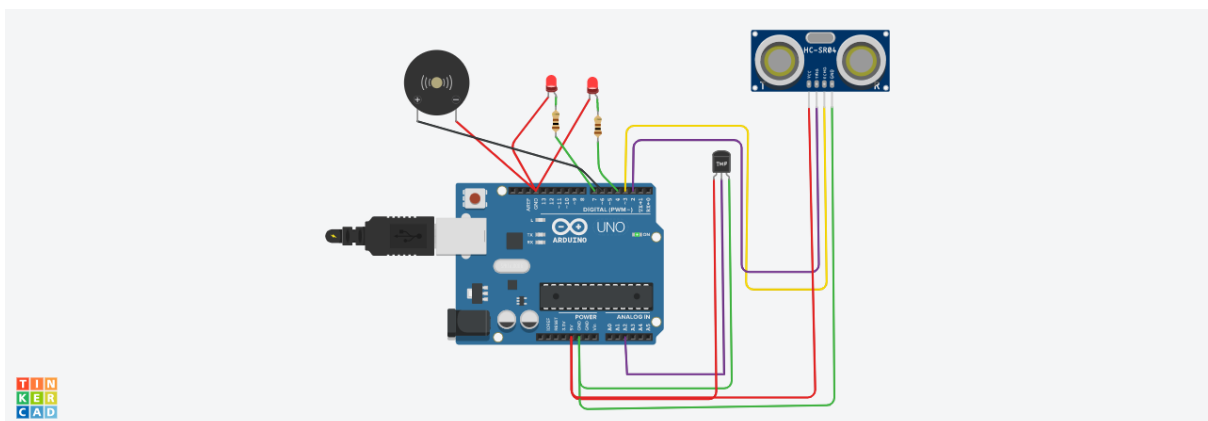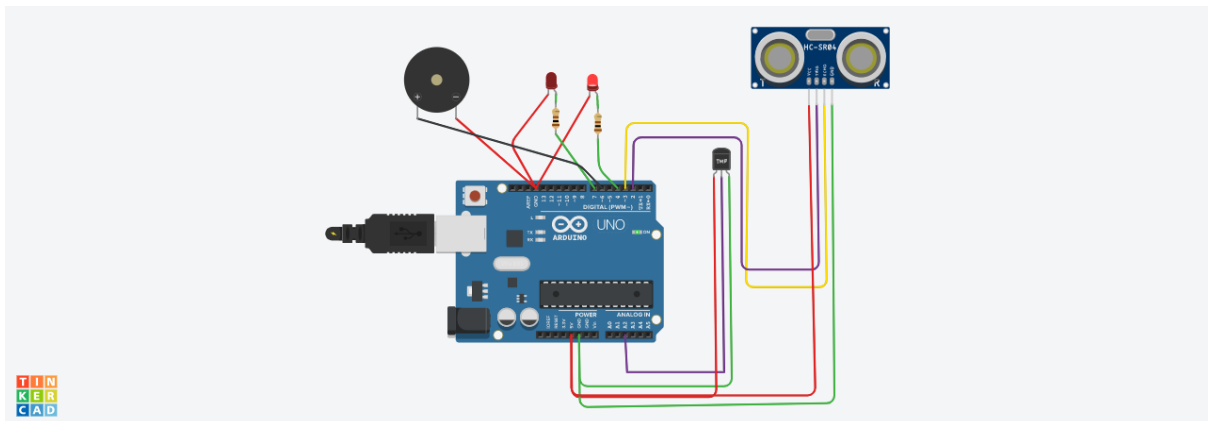
ASSIGNMENT-1

SMART HOME USING TINKERCAD

CIRCUIT:

SIMULATION:

CODE:

```cpp
// 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);
}
```