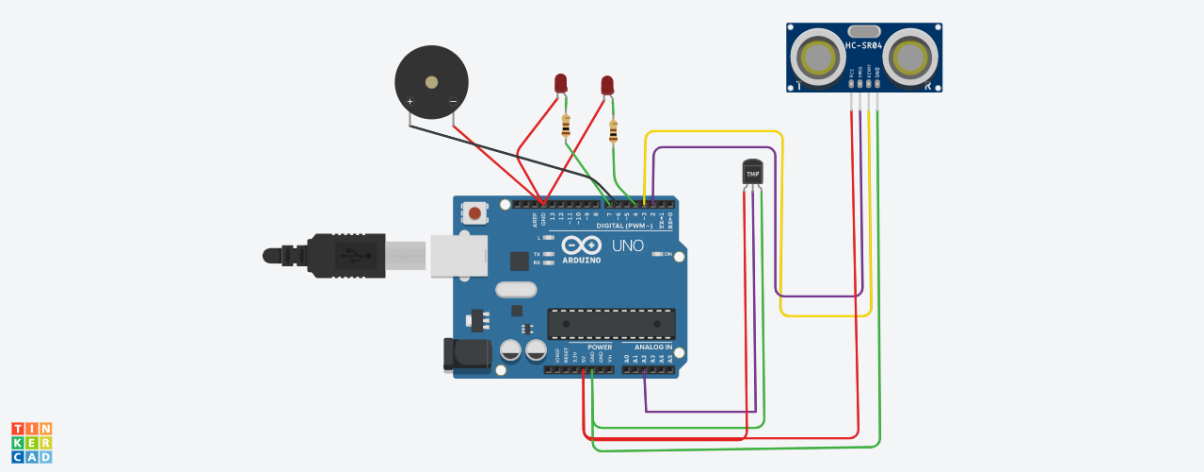
NAME: JAYASHREE S **REG. NO.:** 211419106113

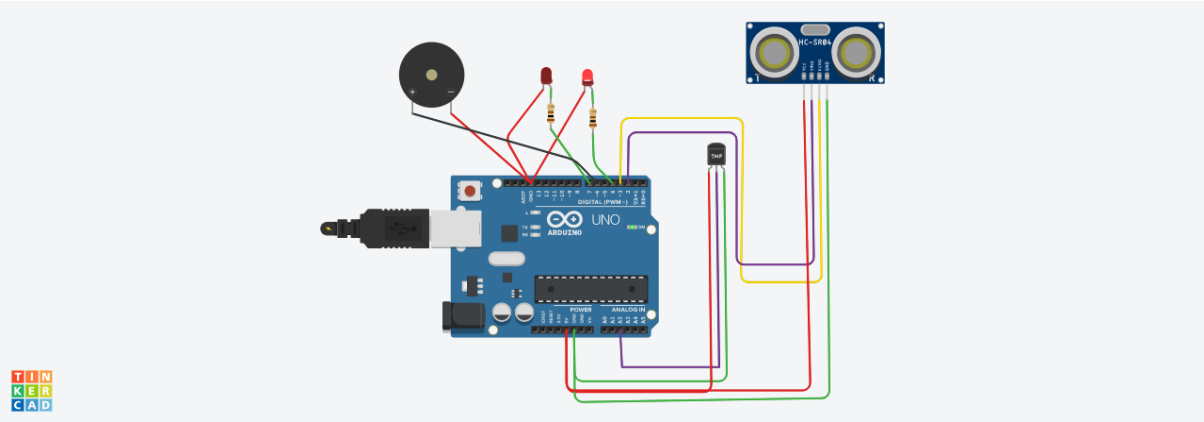
ASSIGNMENT-1

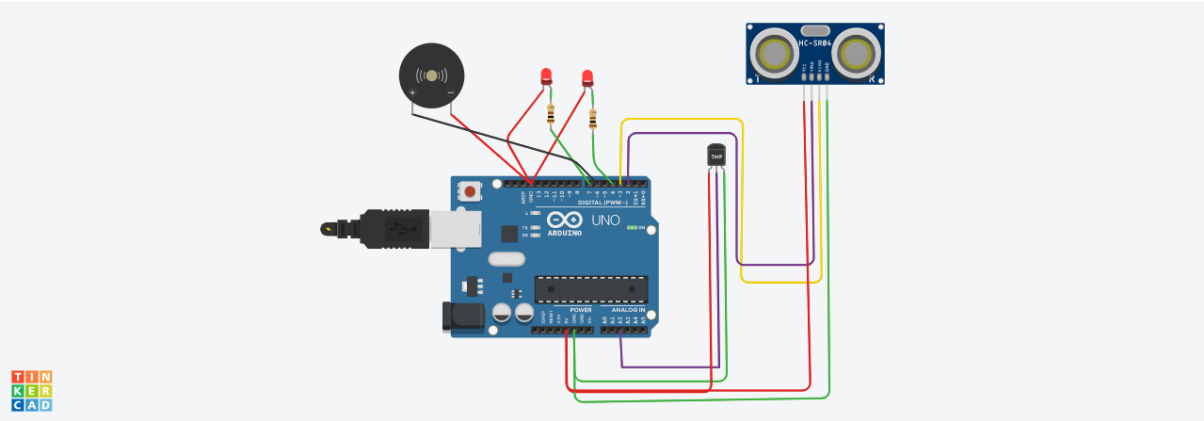
SMART HOME USING TINKERCAD

CIRCUIT:



SIMULATION:





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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:");
```

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```
 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);
}
```