**NAME:** R.KEERTHANA **REG. NO.: 211419106131**

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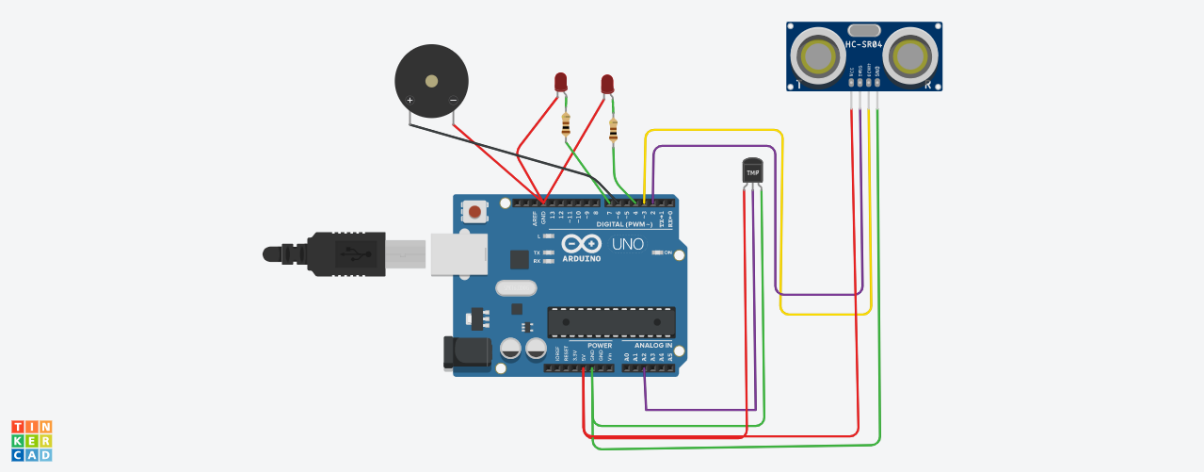
|---|---|
| ASSIGNMENT DATE | 15 SEPTEMBER 2022 |
| STUDENT NAME | R.KEERTHANA |
| STUDENT ROLL NUMBER | 211419106131 |
| MAXIMUM MARKS | 2 MARKS |

# ASSIGNMENT-1

## SMART HOME USING TINKERCAD

### CIRCUIT:




### SIMULATION:

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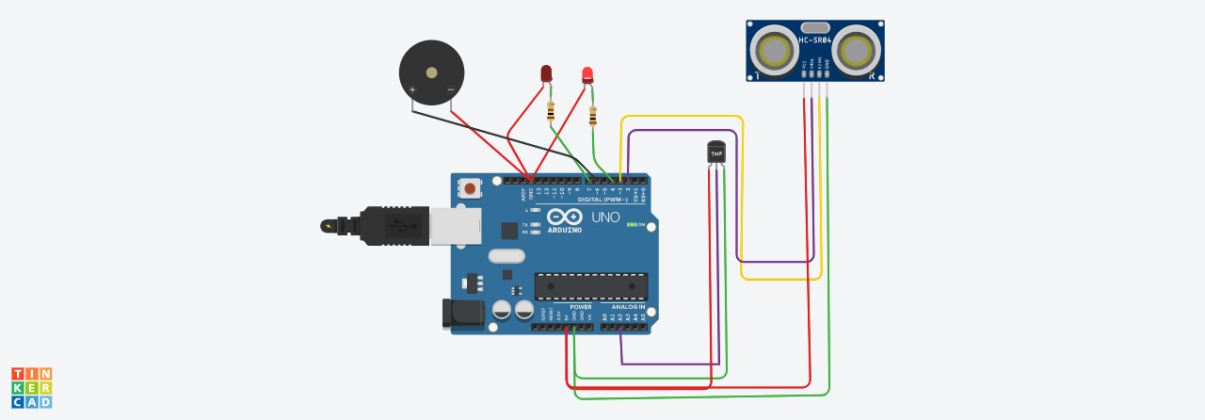


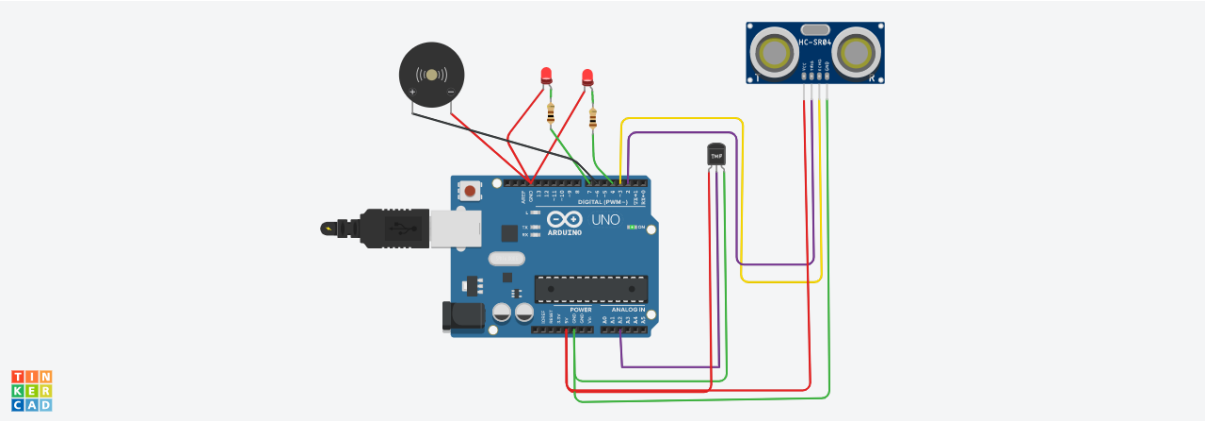


## CODE:

```
// 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);
}
```

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```
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);
}
```