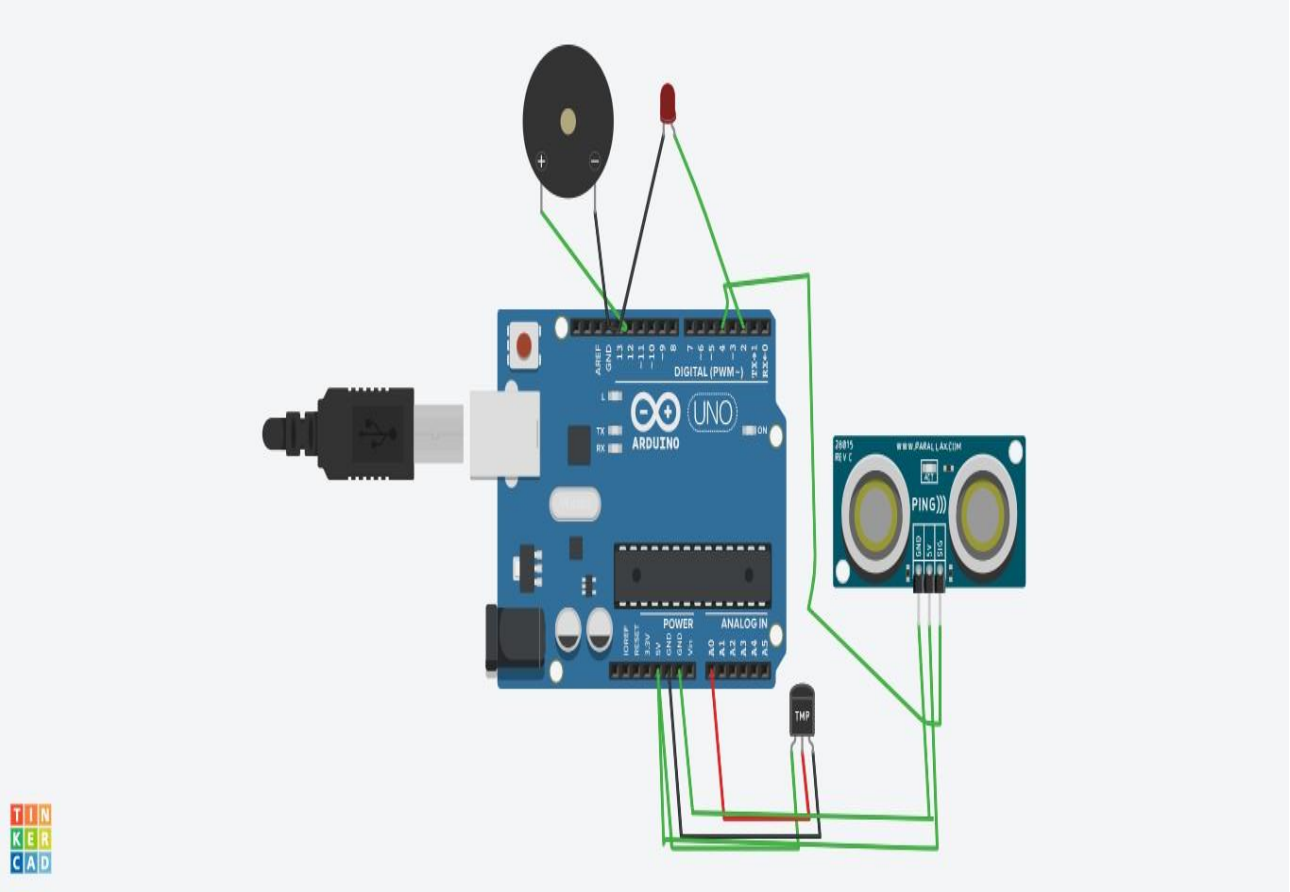
ASSIGNMENT – I

Build a smart home in Thinkercad with 2 sensors, an Led, buzzer

Team ID	PNT2022TMID21693
Project Name	Gas Leakage Monitoring and Alerting System




```
const int pingpin=4;
const int led = 13; int baselineTemp = 0; int celsius = 0;
int fahrenheit = 0;

void setup()
{
  Serial.begin(9600);   pinMode(led, OUTPUT);    pinMode(2,
OUTPUT);
 }
```

```
void loop() {   long duration, cm;   pinMode(pingpin, OUTPUT);
digitalWrite(pingpin, LOW);   delayMicroseconds(2);
digitalWrite(pingpin, HIGH);   delayMicroseconds(10);
digitalWrite(pingpin, LOW);    pinMode(pingpin,INPUT);     duration =
pulseIn(pingpin, HIGH);    cm = duration * 0.034 / 2;    if(cm<100) {
digitalWrite(led,HIGH);
  }
 else
  {
  digitalWrite(led,LOW);
  }


 // temp sensor   baselineTemp = 40;


 celsius = map(((analogRead(A0) - 20) * 3.04), 0, 1023, -40, 125);


  fahrenheit = ((celsius * 9) / 5 + 32);
 Serial.print(celsius);
 Serial.print(" C, ");
 Serial.print(fahrenheit);
 Serial.println(" F");


 if (celsius < baselineTemp) {     digitalWrite(2, LOW);}   if (celsius >= baselineTemp && celsius <
baselineTemp + 10) {     digitalWrite(2, HIGH);}   if (celsius >= baselineTemp + 10 && celsius <
baselineTemp + 20) {     digitalWrite(2, HIGH);}    if (celsius >= baselineTemp + 20 && celsius <
baselineTemp + 30) {      digitalWrite(2, HIGH);}   if (celsius >= baselineTemp + 30) {     digitalWrite(2,
HIGH);}   delay(100);
}
```