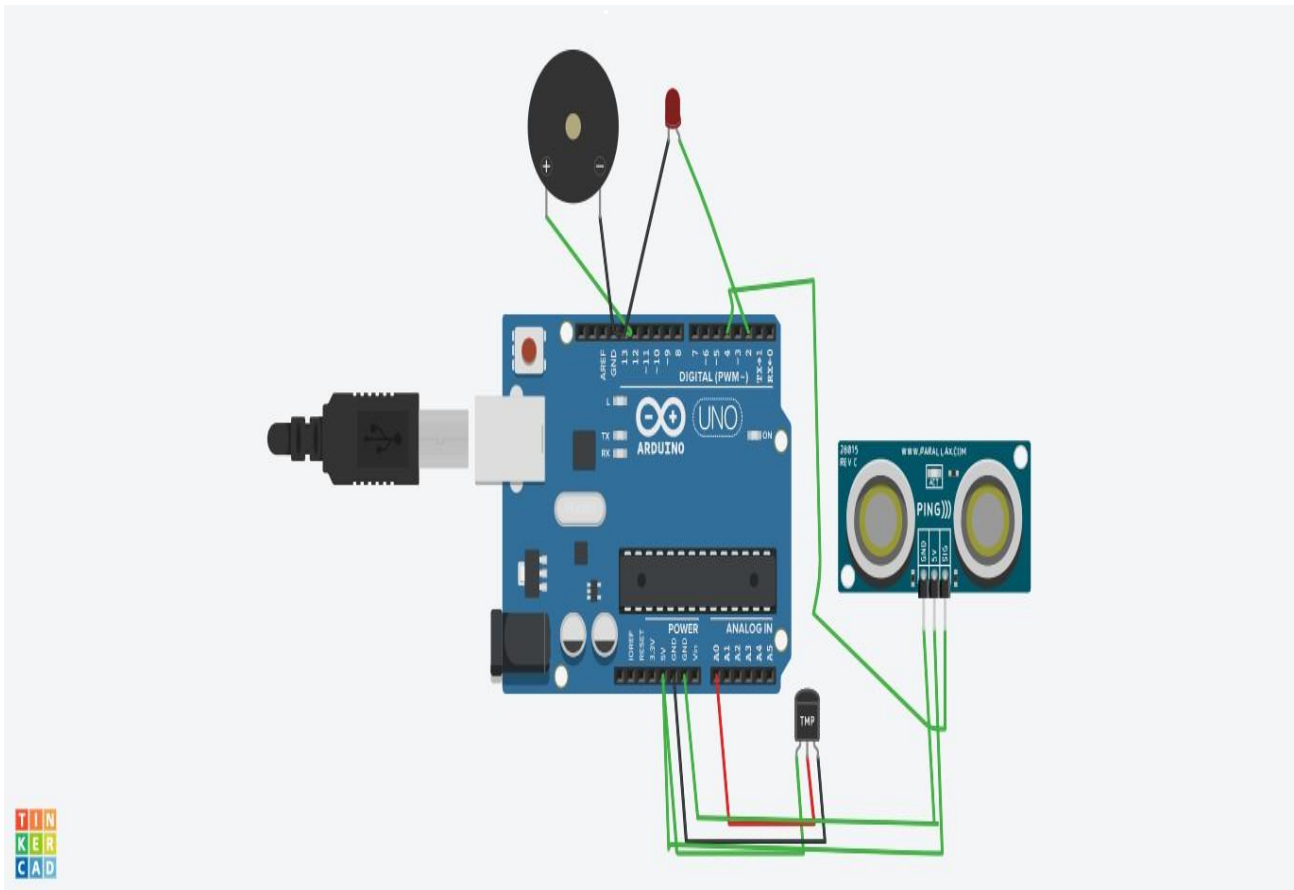


## ASSIGNMENT – I

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

Team ID	PNT2022TMID19147
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);

}

```