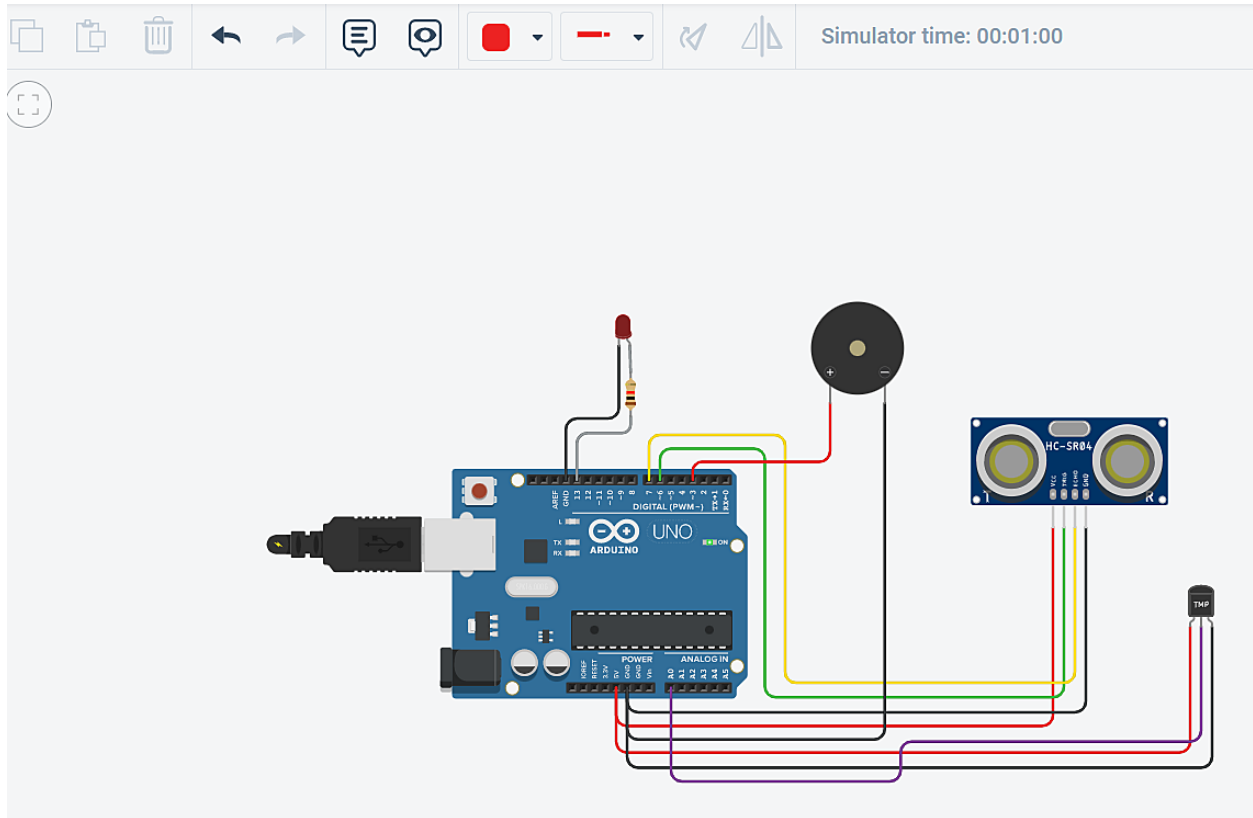


# ASSIGNMENT 1

## CIRCUIT DIAGRAM:



## SOURCE CODE:

```
int pingPin = 6; // Trigger Pin of Ultrasonic Sensor
int echoPin = 7; // Echo Pin of Ultrasonic Sensor
double tempPin=A0;
void setup()
{
  Serial.begin(9600); // Starting Serial Terminal
  pinMode(LED_BUILTIN, OUTPUT);
  pinMode(3,OUTPUT);
```

```

}
void loop()
{
  long distcm,duration;
  double temp;
  temp=analogRead(tempPin);
  temp=((temp/1024)*5)-0.5)*100;
  //converting analog reading to celcius
  //Turn on the buzzer when temperature increases above 70 celcius
  if(temp>70)
  {
    digitalWrite(3, HIGH);
  }
  else
  {
    digitalWrite(3,LOW);
  }
  delay(1000);
  pinMode(pingPin, OUTPUT);
  digitalWrite(pingPin, LOW);
  delayMicroseconds(2);
  digitalWrite(pingPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(pingPin, LOW);
  pinMode(echoPin, INPUT);
  duration = pulseIn(echoPin, HIGH);
  distcm = duration*0.0343/2;
  // Turns the LED ON when the water level drops below 100cm.
  if(distcm<100)
  {
    digitalWrite(LED_BUILTIN, HIGH);
  }
}

```

```
else
{
  digitalWrite(LED_BUILTIN, LOW);
}
}
```