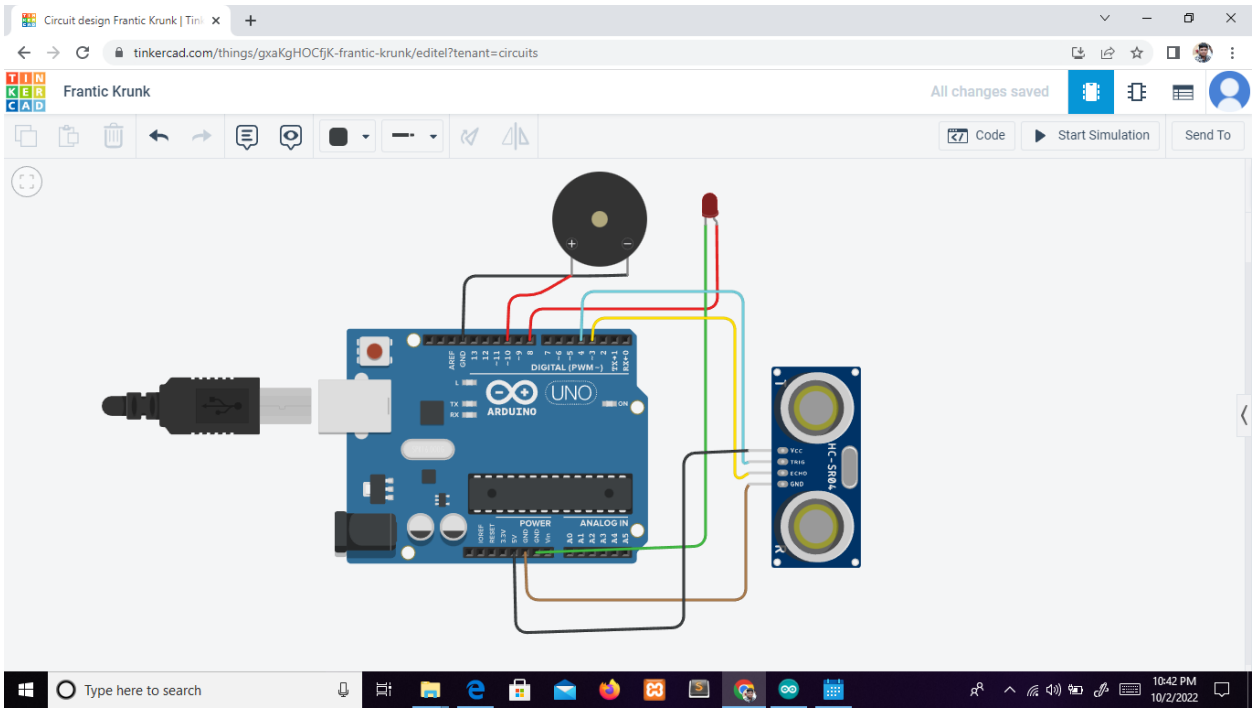
Assignment – 1

Team ID	**PNT2022TMID44989**
Name	**C.R.Shyam**
Project Name	**Real-Time River Water Quality Monitoring and Control System**
Marks	**2marks**

Circuit Diagram

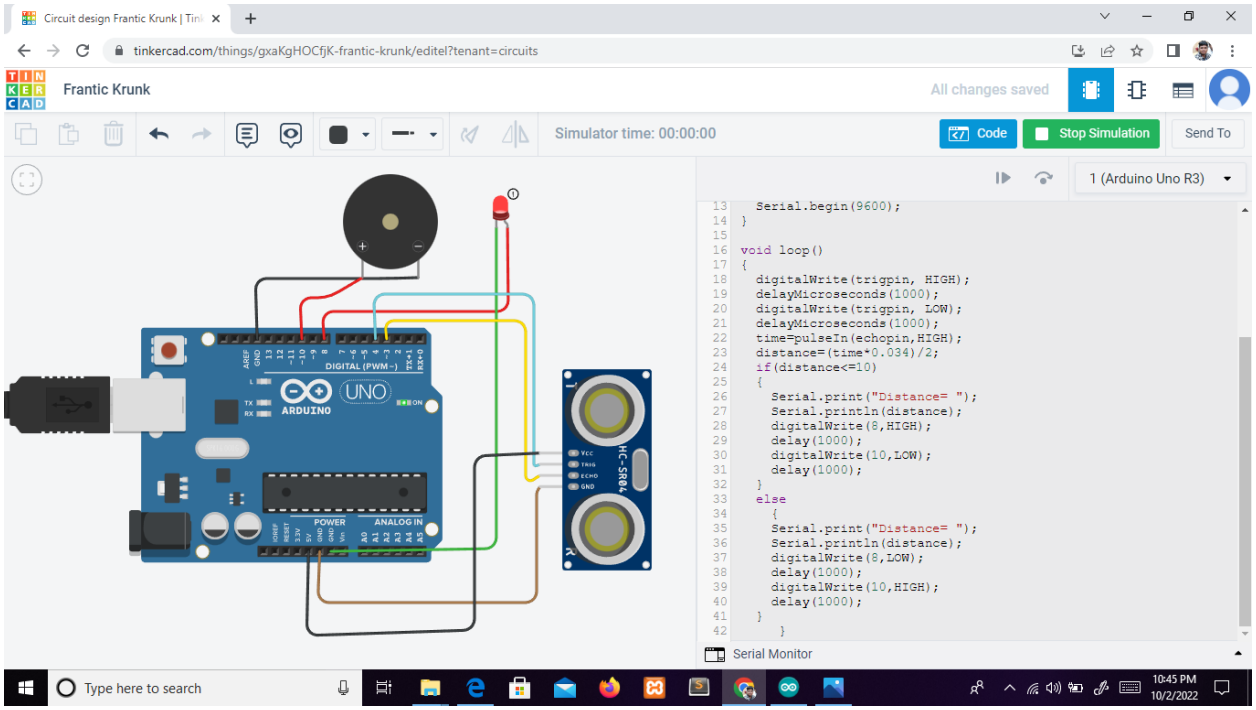


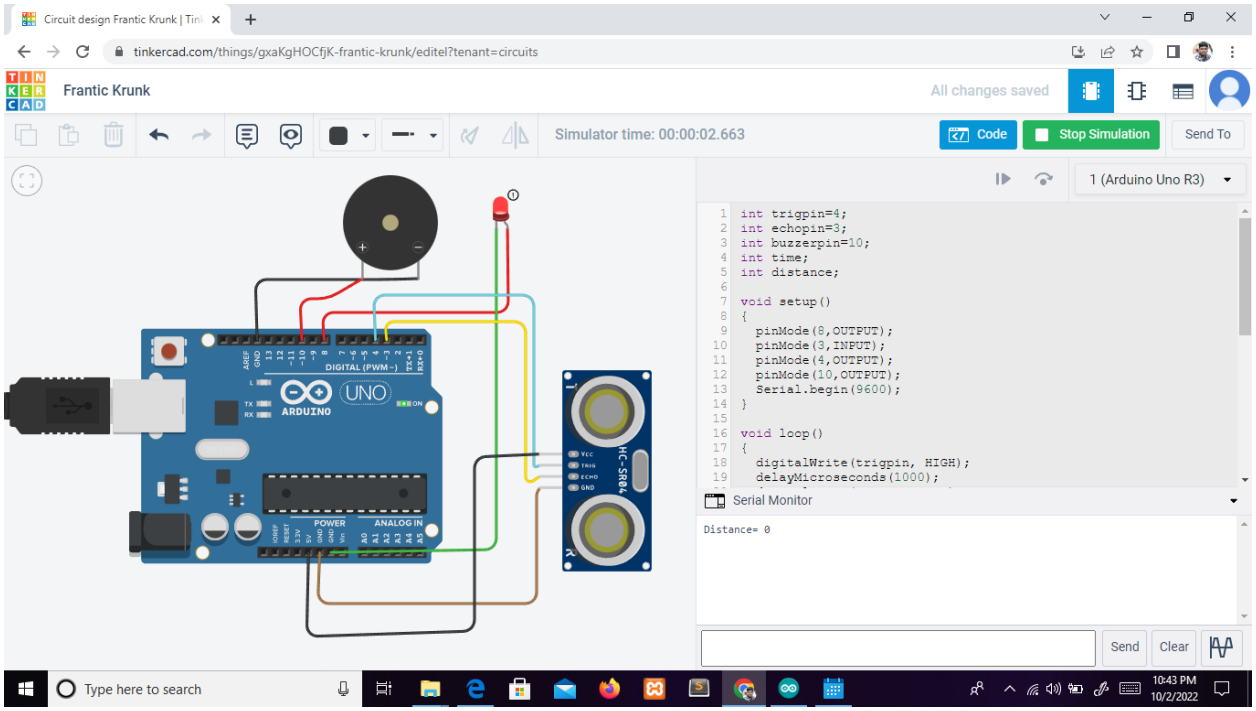
Program Coding

```
int trigpin=4;
int echopin=3;
int buzzerpin=10;
int time;
int distance;

void setup()
{
  pinMode(8,OUTPUT);
  pinMode(3,INPUT);
  pinMode(4,OUTPUT);
  pinMode(10,OUTPUT);
  Serial.begin(9600);
}

void loop()
{
  digitalWrite(trigpin, HIGH);
  delayMicroseconds(1000);
  digitalWrite(trigpin, LOW);
  delayMicroseconds(1000);
  time=pulseIn(echopin,HIGH);
  distance=(time*0.034)/2;
  if(distance<=10)
  {
    Serial.print("Distance= ");
    Serial.println(distance);
    digitalWrite(8,HIGH);
    delay(1000);
    digitalWrite(10,LOW);
    delay(1000);
  }
  else
    {
    Serial.print("Distance= ");
    Serial.println(distance);
```

```
  digitalWrite(8,LOW);
  delay(1000);
  digitalWrite(10,HIGH);
  delay(1000);
  }
}
```

OUTPUT




Circuit design Frantic Krunk | Tinkercad
tinkercad.com/things/gxaKgHOCfjK-frantic-krunk/editel?tenant=circuits
Frantic Krunk
All changes saved
Simulator time: 00:00:02.663
Code
Stop Simulation
Send To
1 (Arduino Uno R3)
int trigpin=4;
int echopin=3;
int buzzerpin=10;
int time;
int distance;
void setup()
{
pinMode(8,OUTPUT);
pinMode(3,INPUT);
pinMode(4,OUTPUT);
pinMode(10,OUTPUT);
Serial.begin(9600);
}
void loop()
{
digitalWrite(trigpin, HIGH);
delayMicroseconds(1000);
Serial Monitor
Distance= 0
Send
Clear
HC-SR04
Type here to search
10:43 PM
10/2/2022