ASSIGNMENT 1

Date	19/9/2022
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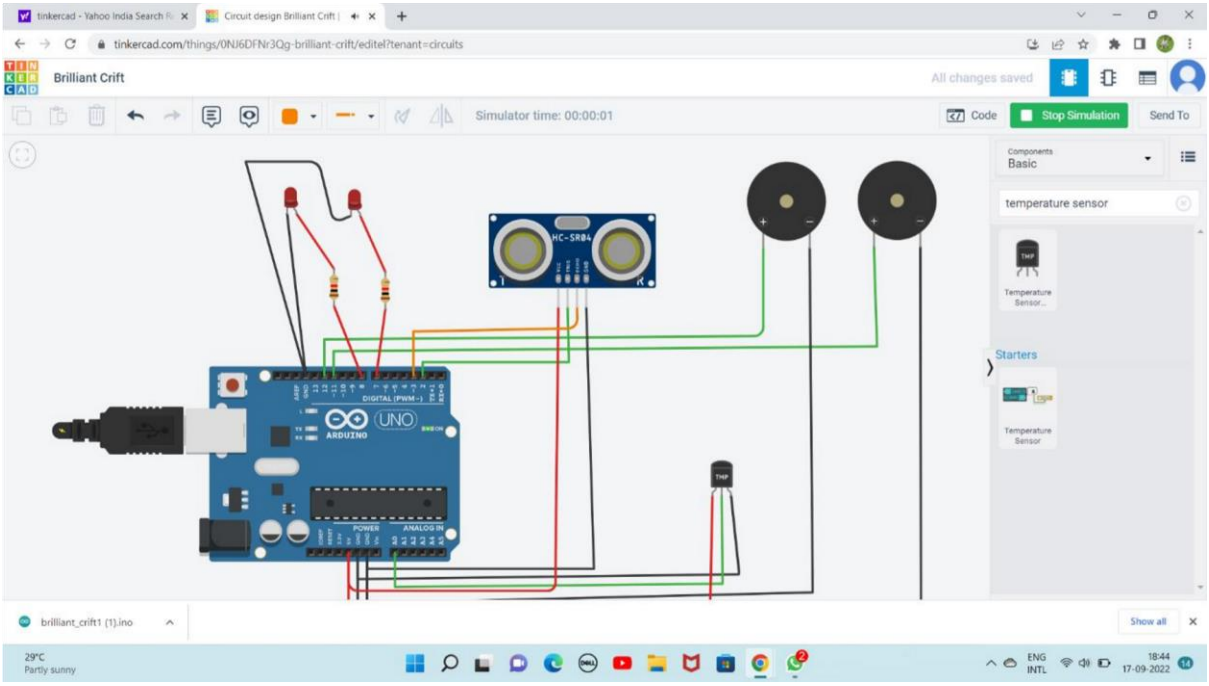
Team ID	PNT2022TMID34215
Project Name	Smart Waste Management System For Metropolitan Cities

Circuit diagram:

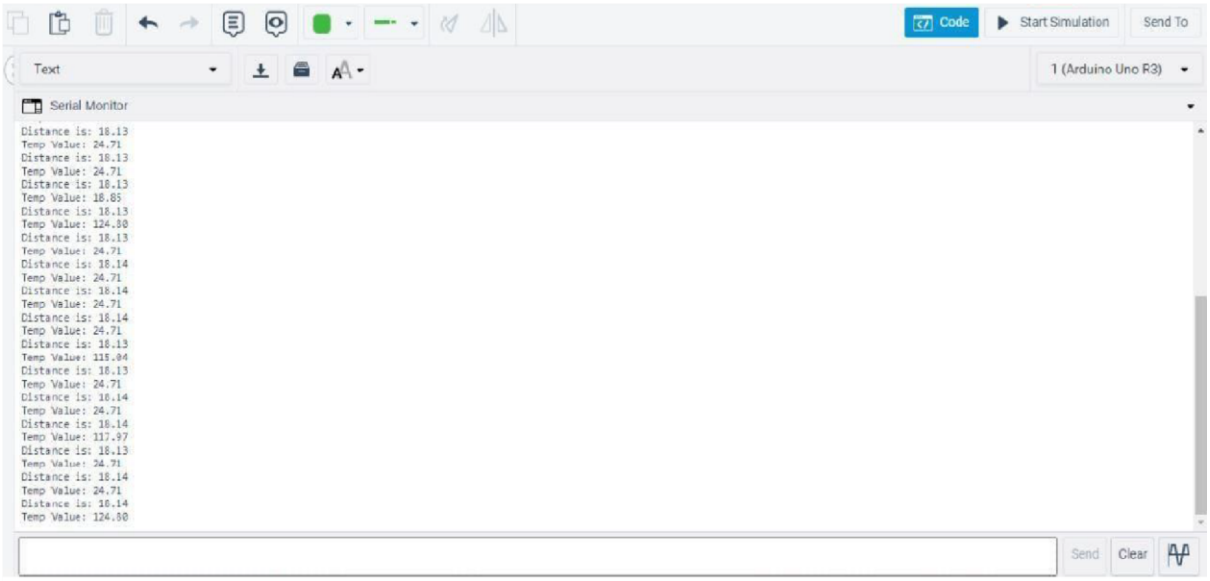


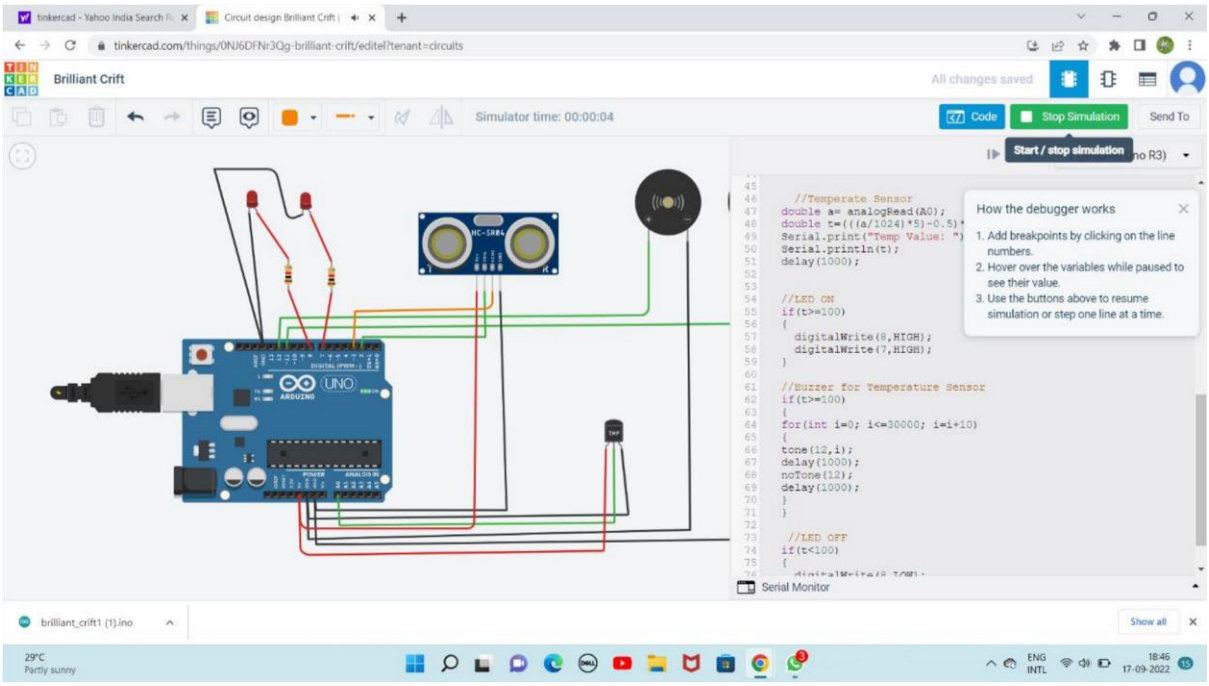
Code:

```
int t=2;  int
e=3; void
setup()
{
Serial.begin(9600);
pinMode(t,OUTPUT);
pinMode(e,INPUT);
pinMode(12,OUTPUT);
```

```
}
 void loop()
{
//ultrasonic sensor digitalWrite(t,LOW);
digitalWrite(t,HIGH);
delayMicroseconds(10);
digitalWrite(t,LOW);
floatdur=pulseIn(e,HIGH);  float
dis=(dur*0.0343)/2;
Serial.print("Distance is: ");
Serial.println(dis);
//LED  ON  if(dis>=100)
//(in terms of centimeter)
{ digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
//Buzzer For ultrasonic Sensor if(dis>=100)
{
for(int i=0; i<=30000; i=i+10)
{  tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
//LED OFF if(t<100)
{ digitalWrite(8,LOW);
digitalWrite(7,LOW);
}
}
```

Output:


Code
Start Simulation
Send To
Text
1 (Arduino Uno R3)
Serial Monitor
Distance is: 18.13
Temp Value: 24.71
Distance is: 18.13
Temp Value: 24.71
Distance is: 18.13
Temp Value: 18.85
Distance is: 18.13
Temp Value: 124.80
Distance is: 18.13
Temp Value: 24.71
Distance is: 18.14
Temp Value: 24.71
Distance is: 18.14
Temp Value: 24.71
Distance is: 18.14
Temp Value: 24.71
Distance is: 18.13
Temp Value: 115.04
Distance is: 18.13
Temp Value: 24.71
Distance is: 18.14
Temp Value: 24.71
Distance is: 18.14
Temp Value: 117.97
Distance is: 18.13
Temp Value: 24.71
Distance is: 18.14
Temp Value: 24.71
Distance is: 18.14
Temp Value: 124.80
Send
Clear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tinkercad.com/things/0NJ6DFNr3Qg-brilliant-crift/editel?tenant=circuits
Brilliant Crift
All changes saved
Simulator time: 00:00:04
Code
Stop Simulation
Send To
Start / stop simulation
How the debugger works
1. Add breakpoints by clicking on the line numbers.
2. Hover over the variables while paused to see their value.
3. Use the buttons above to resume simulation or step one line at a time.
//Temperate Sensor
double a= analogRead(A0);
double t=(((a/1024)*5)-0.5)*
Serial.print("Temp Value: ")
Serial.println(t);
delay(1000);
//LED ON
if(t>=100)
{
digitalWrite(8,HIGH);
digitalWrite(7,HIGH);
}
//Buzzer for Temperature Sensor
if(t>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
//LED OFF
if(t<100)
{
Serial Monitor
brilliant_crift1 (1).ino
Show all
29°C
Partly sunny
ENG
INTL
18:46
17-09-2022