Assignment - 4

Date	30 October 2022
Team ID	PNT2022TMID39365
Project Name	IoT based safety gadget for child safety monitoring and Notification
Maximum Marks	2 Marks

Code:

sketch.ino

```
#define ECHO_PIN 2
#define TRIG_PIN 3
void setup() {
Serial.begin(115200);
pinMode(LED_BUILTIN, OUTPUT);
pinMode(TRIG_PIN, OUTPUT);
pinMode(ECHO_PIN, INPUT);
}
float readDistanceCM() {
digitalWrite(TRIG_PIN, LOW);
delayMicroseconds(2);
digitalWrite(TRIG_PIN, HIGH);
delayMicroseconds(10);
digitalWrite(TRIG_PIN, LOW);
int duration = pulseIn(ECHO_PIN, HIGH);
return duration * 0.034 / 2;
}
void loop() {
float distance = readDistanceCM();
bool isNearby = distance < 100;
digitalWrite(LED_BUILTIN, isNearby);
Serial.print("Measured distance: ");
Serial.println(readDistanceCM());
delay(100);
}
```
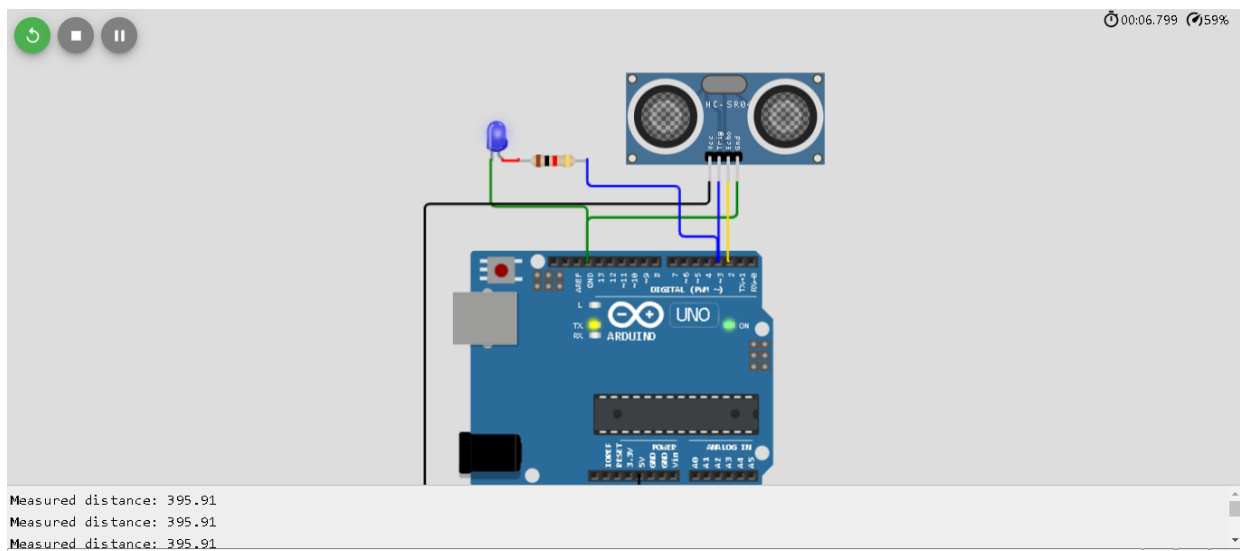
diagram.json

```
{
 "version": 1,
 "author": "Kamesh Venugopal",
 "editor": "wokwi",
 "parts": [
  { "type": "wokwi-arduino-uno", "id": "uno", "top": 43.39, "left": 294.53, "attrs": {} },
  {
   "type": "wokwi-led",
   "id": "led1",
   "top": -76.37,
   "left": 312.66,
   "attrs": { "color": "blue" }
  },
  {
   "type": "wokwi-hc-sr04",
   "id": "ultrasonic1",
```

```
      "top": -109.43,
      "left": 442.68,
      "attrs": { "distance": "400" }
    },
    {
      "type": "wokwi-resistor",
      "id": "r1",
      "top": -43.7,
      "left": 351.33,
      "attrs": { "value": "1000" }
    }
  ],
  "connections": [
    [ "led1:A", "r1:1", "red", [ "v1.07", "h15.01" ] ],
    [ "led1:C", "uno:GND.1", "green", [ "v40.11", "h-3.15" ] ],
    [ "ultrasonic1:GND", "uno:GND.1", "green", [ "v30.03", "h-117.95" ] ],
    [ "ultrasonic1:VCC", "uno:5V", "black", [ "v18.52", "h-243.2", "v262.65", "h189.25" ] ],
    [ "ultrasonic1:ECHO", "uno:2", "gold", [ "v0" ] ],
    [ "ultrasonic1:TRIG", "uno:3", "blue", [ "v0" ] ],
    [ "r1:2", "uno:3", "blue", [ "v23.05", "h78.94", "v43.03", "h16.14" ] ]
  ]
}
```

Reference project link:

https://wokwi.com/projects/347011411261522516