ASSIGNMENT-1

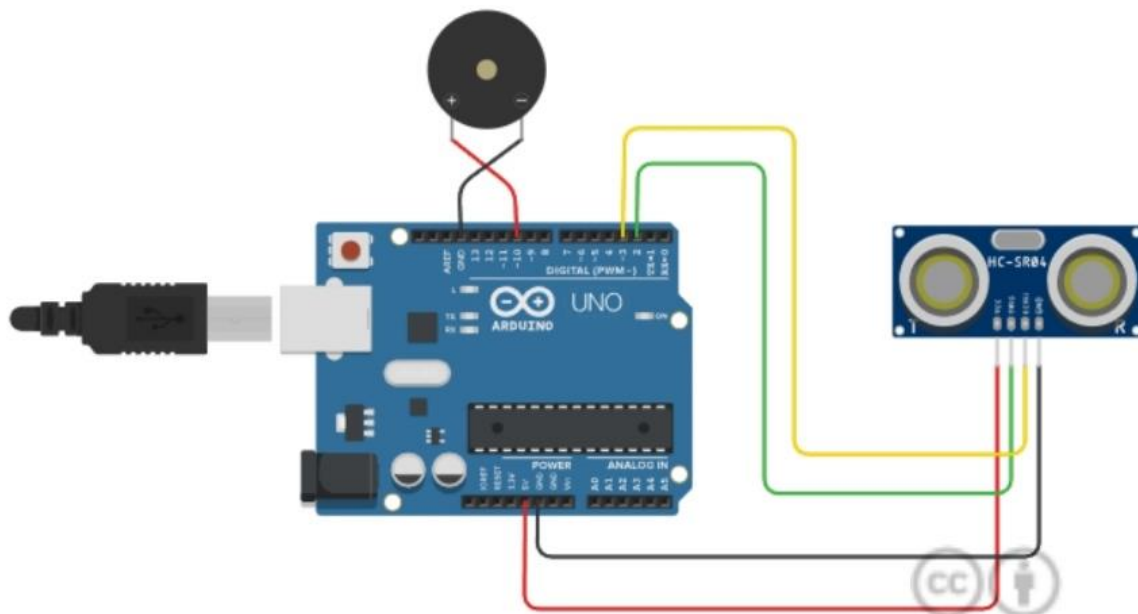## TECHNOLOGY: INTERNET OF THINGS

DOMAIN: CHILD SAFETY GADGET

Description: the assignment is about child safety gadget using IOT, were the ultrasonic distance sensor detect the particles within the distance 10m and piezo also used here when some particle detected using piezo is an electronic device that is used to produce that is used to produce tone or alarm or sound .
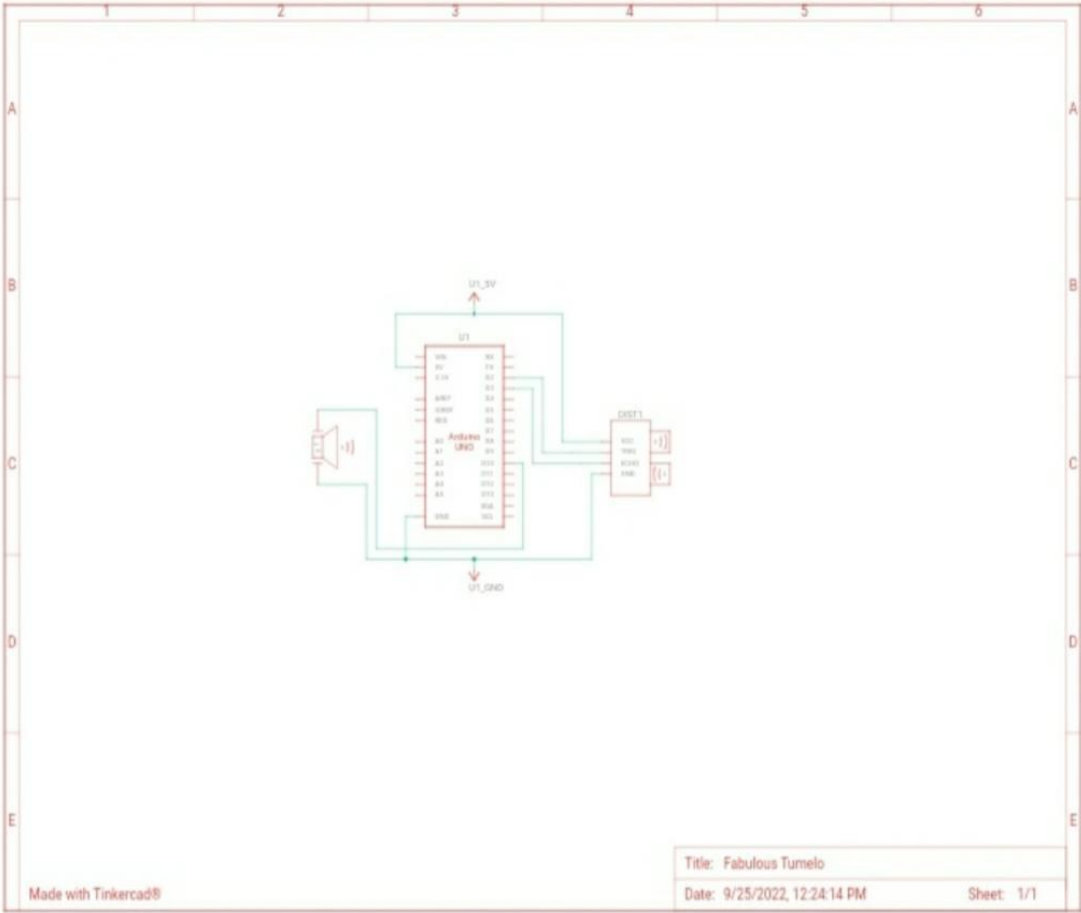
Materials used:
- Ultrasonic distance sensor
- Piezo buzzer
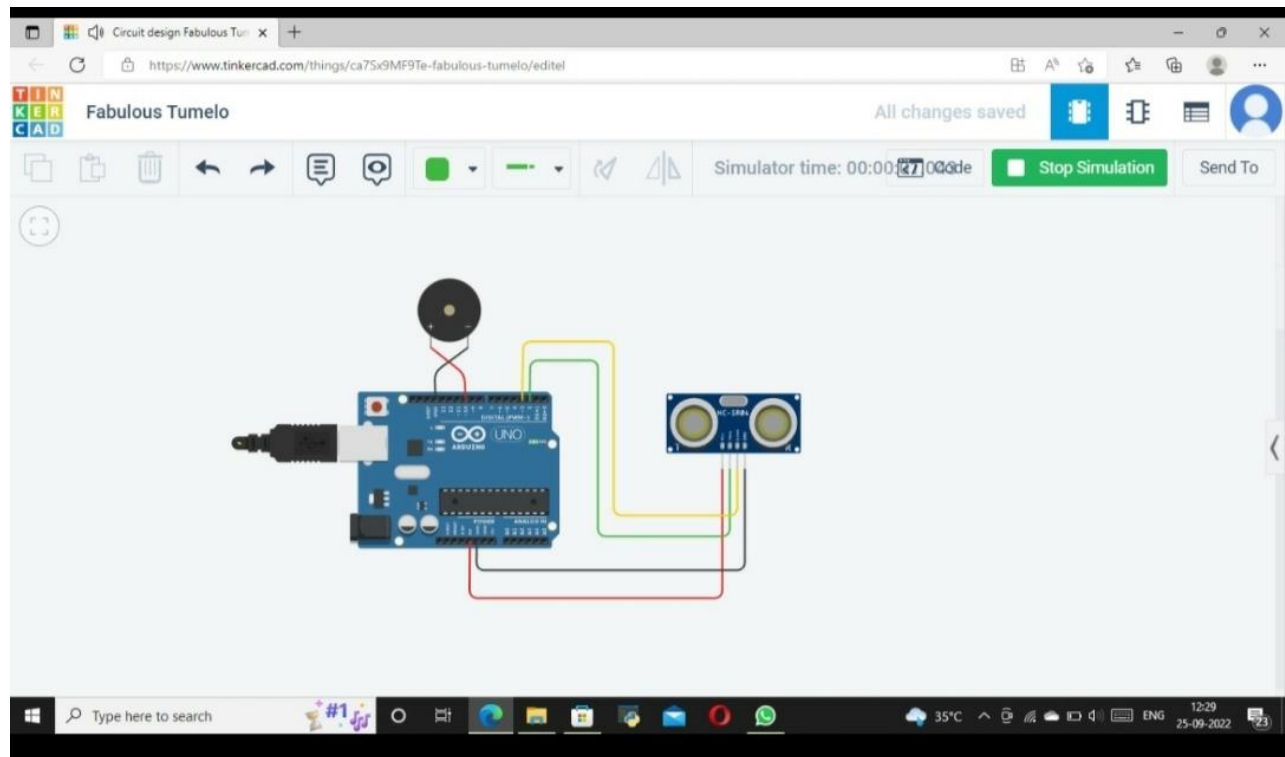- Arduino uno R3

Design sight: https://www.tinkercad.com/things/ca7Sx9MF9Te-fabulous-tumelo/editel

Diagram:

Circuit diagram:

Code:

```
Int trigger_pin = 2;
Int echo_pin = 3;
Int buzzer_pin = 10;
Int time;
Int distance;
Void setup()
{
    Serial.begin (9600);
    pinMode (trigger_pin, OUTPUT);
    pinMode (echo_pin, INPUT);
    pinMode (buzzer_pin, OUTPUT);
}
Void loop()
{
  digitalWrite (trigger_pin, HIGH);
  delayMicroseconds (10);
  digitalWrite (trigger_pin, LOW);
  time = pulseIn (echo_pin, HIGH);
  distance = (time * 0.034) / 2;

 if (distance <= 10)
     {
     Serial.println ("Some person near child ");
     Serial.print (" Distance= ");
     Serial.println (distance);
     digitalWrite (buzzer_pin, HIGH);
     delay (500);
     }
  Else{
   Serial.println ("some person not near child ");
     Serial.print (" Distance= ");
     Serial.println (distance);
     digitalWrite (buzzer_pin, LOW);
     delay (500);
  }
}
```

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