DOOR BELL SENSOR

Project Title: DOOR BELL SENSOR

Project Lead: Rutuja Shinde

Learning Objective:

- Simulate LDR and Thermistor workings.
- Use Tinkercad for electronics and Arduino projects.

Required Components:

1.Arduino Uno (virtual, in Tinkercad)

2.Breadboard (virtual)

3.Connecting Wires

4.Buzzer

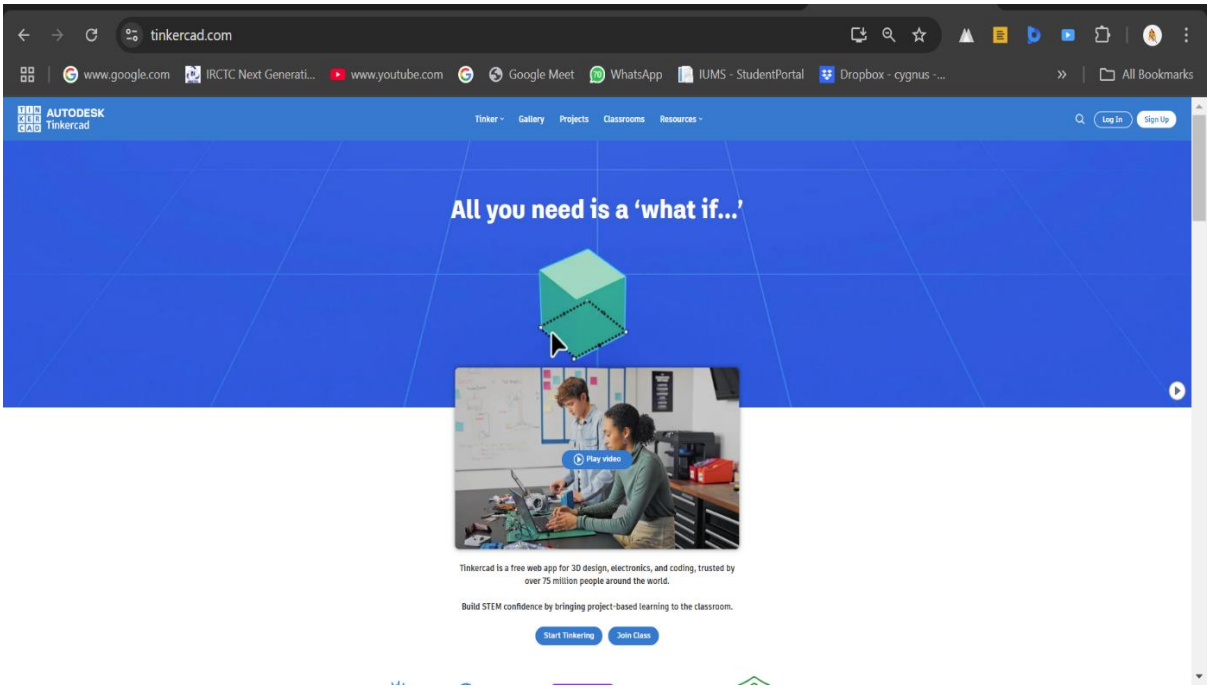
5.Ultrasonic sensor

6.Led

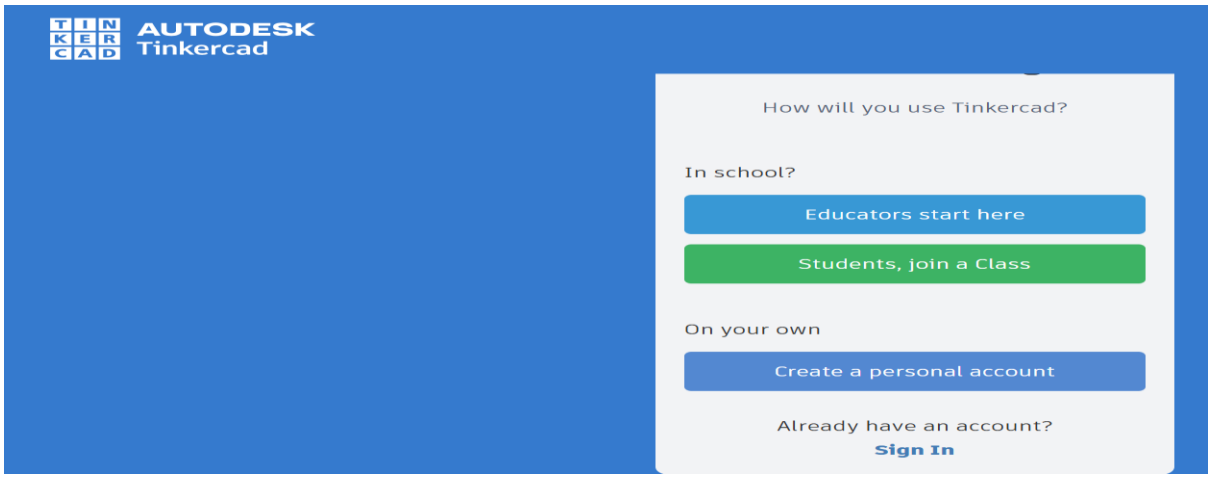
Step-by-Step Guide

Step 1: Set up Your Tinkercad Project

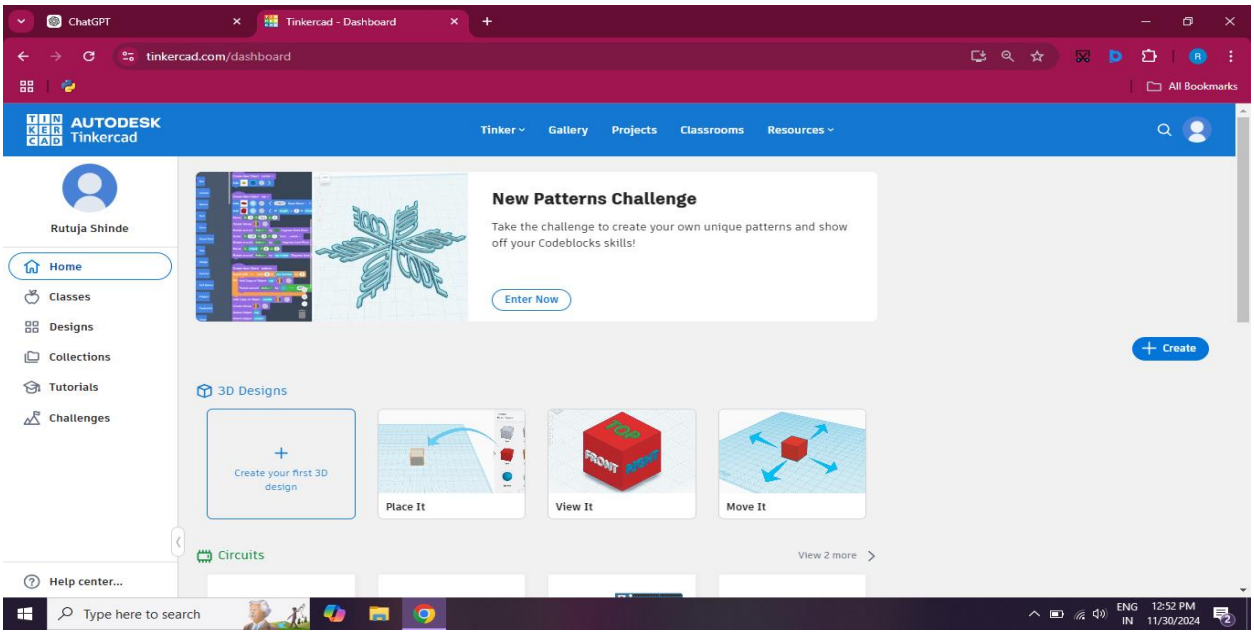
1. Open Tinkercad in your web browser. (www.tinkercad.com)



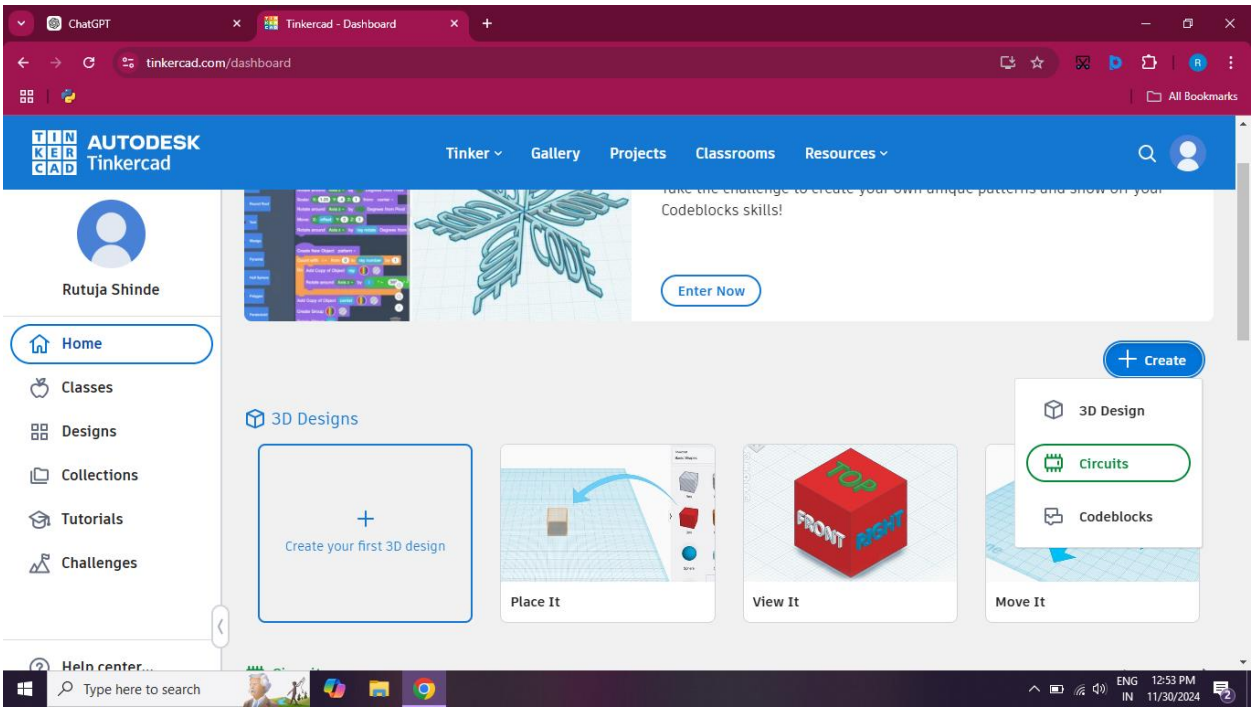
2.Create a free account or log in if you already have one.



3.Select **"Circuits"** from the Tinkercad dashboard.



4.Click **"Create New Circuit"** to start a new project.



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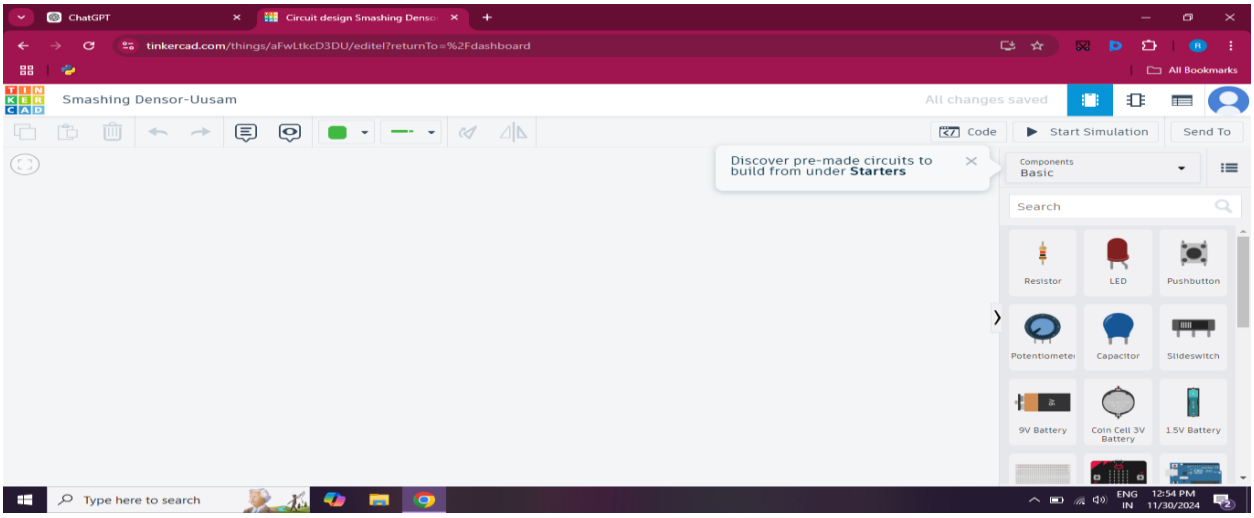
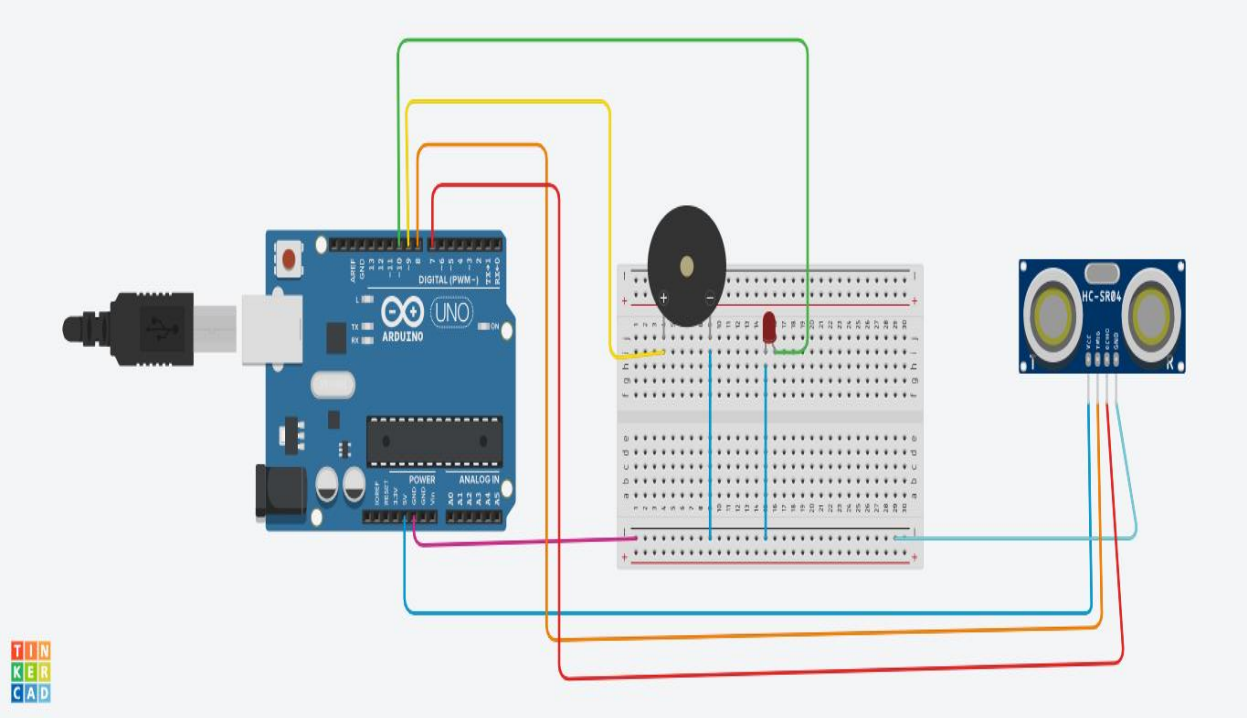

ChatGPT
Circuit design Smashing Denso
tinkercad.com/things/aFwLtkcD3DU/editel?returnTo=%2Fdashboard
All Bookmarks
Smashing Densor-Uusam
All changes saved
Code
Start Simulation
Send To
Discover pre-made circuits to build from under Starters
Components
Basic
Search
Resistor
LED
Pushbutton
Potentiometer
Capacitor
Slideswitch
9V Battery
Coin Cell 3V Battery
1.5V Battery
Type here to search
ENG
IN
12:54 PM
11/30/2024

Circuit Diagram:



Code:

```
const int trigPin = 8;
const int echoPin = 7;
const int buzzerPin = 9;
const int ledPin = 10;
long duration;
int distance;
void setup()
{
```

```
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  pinMode(buzzerPin, OUTPUT);
  pinMode(ledPin, OUTPUT);
  Serial.begin(9600);
}
void loop()
{
  digitalWrite(trigPin, LOW);
  delayMicroseconds(2);
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);
  duration = pulseIn(echoPin, HIGH);
  distance = duration * 0.034 / 2;
  Serial.print("Distance: ");
  Serial.println(distance);
  if (distance > 0 && distance <= 50)
{
    digitalWrite(buzzerPin, HIGH);
    digitalWrite(ledPin, HIGH);
    delay(1000);
    digitalWrite(buzzerPin, LOW);
```

```
    digitalWrite(ledPin, LOW);
  }
  delay(200);
}
```

Output: