

SOURCE CODE :

```
#include <Adafruit_NeoPixel.h>

int ledPin= 3;
int ledNo= 12;

Adafruit_NeoPixel strip=
Adafruit_NeoPixel(ledNo,ledPin,NEO_RGB+NEO_KHZ800);

int buzzerPin= 2;
int echoPin= 6;
int trigPin= 5;
int minDistance = 100;
int maxDistance = 300;

void setup()
{
  pinMode(buzzerPin, OUTPUT);
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  Serial. begin(9600);
  strip.begin();
  for(int i = 0; i < ledNo; i++)
  {
    strip.setPixelColor(i,strip.Color(0,0,0));
  }
  strip.show();
}

void loop()
{
  int distance = calcDistance();
  //Serial.println(distance);
  int ledsToGlow = map(distance, minDistance, maxDistance, ledNo, 1);
```

```

//Serial.println(ledsToGlow);
if(ledsToGlow == 12)
{
    digitalWrite(buzzerPin, HIGH);
}
else
{
    digitalWrite(buzzerPin, LOW);
}
for(int i = 0; i < ledsToGlow; i++)
{
    if(i < 4)
    {
        strip.setPixelColor(i,strip.Color(50,0,0));//green,red,blue }
    else if(i >= 4 && i < 8)
    {
        strip.setPixelColor(i,strip.Color(50,50,0));//green,red,blue }
    else if(i >= 8 && i < 12)
    {
        strip.setPixelColor(i,strip.Color(0,50,0));//green,red,blue }
    }
}
for(int i = ledsToGlow; i < ledNo; i++)
{
    strip.setPixelColor(i,strip.Color(0,0,0));
}
strip.show();
delay(50);
}

```

```

int calcDistance()
{
    long distance,duration;
    digitalWrite(trigPin, LOW);
    delayMicroseconds(2);
    digitalWrite(trigPin, HIGH);
    delayMicroseconds(10);
    digitalWrite(trigPin, LOW);

```

```
duration = pulseIn(echoPin, HIGH);  
distance = duration / 29 / 2;  
if(distance >= maxDistance)  
{  
    distance = maxDistance;  
}  
if(distance <= minDistance)  
{  
    distance = minDistance;  
}  
return distance;  
}
```

Tinkercad Link : (My project Link)

<https://www.tinkercad.com/things/3ec1zDWKtVG-19bps1038-hemendiran-mpi-project/editel>

----- Thank you :) -----