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Event - Ard-U-Know Hackathon

Problem Statement 2:

Mohit is fascinated by new technologies. In one of the movies, he saw lights automatically getting turned on when the protagonist walked down the street. He shares the desire to achieve the same in his home. Assist Mohit with his problem and help him come up with a solution.

Code-

```
#include <Adafruit_NeoPixel.h>
#define echopin 7
#define trigpin 8
long duration;
float distance;

#define PIN 5
#define NUMPIXELS 24 // total number of neopixels

Adafruit_NeoPixel pixels(NUMPIXELS, PIN);
//to tell the arduino how many pixels are there and which digital pin is connected to
send signals.

void setup() {
  pinMode(trigpin,OUTPUT);
  pinMode(echopin,INPUT);
  Serial.begin(115200);
  pixels.begin(); //to initialize the neopixel strip
}

void loop()
{
  pixels.clear(); //to set all pixel colours off
```

```

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.print(distance);
Serial.println("cm");
//Setting is 315 cm because the distance between
//the ultrasonic sensor and the next wall is 202cm and thus if any person
//comes in between them then the ultrasonic sensor might record it.
if(distance<315.0)
{
  for(int i=0; i<NUMPIXELS; i++)
  {
    pixels.setPixelColor(i, pixels.Color(0, 150, 0)); //IT GIVES A LIGHT GREEN
COLOR TO THE PIXELS
    pixels.show(); // Send the updated pixel colors to the hardware.
    //delay(500); // Pause before next pass through loop
  }
}
else if(distance>=315.0)
{
  for(int i=0; i<NUMPIXELS; i++)
  {
    pixels.setPixelColor(i, pixels.Color(0, 0, 0));//IT GIVES A off TO THE PIXELS
    pixels.show(); // Send the updated pixel colors to the hardware.
    //delay(500); // Pause before next pass through loop
  }
}
}

```

****The lines in red color are comments**

Link for my Tinkercad-

https://www.tinkercad.com/things/cFuzdSEmwCt?sharecode=p3V3aYCyC8lv2wNp1FBUTUVl81eW4nXQwHmOKojZI_k