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#include <Adafruit_CircuitPlayground.h>

int baseSoundLevel = 65;
int numCalibrationSteps = 500;
int LED_PIN = 3;
int LED_PIN2 = 2;

void setup() {
  Serial.begin(9600);
  CircuitPlayground.begin();
  calibrateBaseSoundLevel();
  pinMode(LED_PIN, OUTPUT);
  pinMode(LED_PIN2, OUTPUT);
}

void loop() {
  float sensedSound = CircuitPlayground.mic.soundPressureLevel(10);
  int energyLevel = sensedSound - baseSoundLevel;

  if (energyLevel <= 0) {
    turnAllLightsOff();
  } else if (energyLevel > 10) {
    blinkAllLightsFast();
  } else {
    lightUpGradually(energyLevel);
  }
}

void calibrateBaseSoundLevel() {
  // Calibration logic (placeholder)
}

void turnAllLightsOff() {
  for (int i = 0; i < 10; i++) {
    CircuitPlayground.setPixelColor(i, 0, 0, 0);
  }
  digitalWrite(LED_PIN, LOW);
  digitalWrite(LED_PIN2, LOW);
}

void blinkAllLightsFast() {
  static unsigned long previousMillis = 0;
```

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unsigned long currentMillis = millis();
if (currentMillis - previousMillis >= 100) {
previousMillis = currentMillis;
static bool lightsOn = false;
lightsOn = !lightsOn;
for (int i = 0; i < 10; i++) {
CircuitPlayground.setPixelColor(i, lightsOn ? 255 : 0, lightsOn ? 255 : 0, lightsOn ?
255 : 0);
}
digitalWrite(LED_PIN, lightsOn ? HIGH : LOW);
digitalWrite(LED_PIN2, lightsOn ? HIGH : LOW);
}
}

void lightUpGradually(int energyLevel) {
int pixelsToLight = map(energyLevel, 1, 10, 1, 10);
for (int i = 0; i < pixelsToLight; i++) {
CircuitPlayground.setPixelColor(i, CircuitPlayground.colorWheel(25 * i));
}
for (int i = pixelsToLight; i < 10; i++) {
CircuitPlayground.setPixelColor(i, 0, 0, 0);
}
digitalWrite(LED_PIN, pixelsToLight > 5 ? HIGH : LOW);
digitalWrite(LED_PIN2, pixelsToLight > 5 ? HIGH : LOW);
}
```