

Experiment No. : 04

Statement :

Fade and brighten 5 LEDs alternatively.

Date of Exp. : xx/xx/xxxx

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```
// Pin numbers for the LEDs
const int ledPins[] = {1,2, 3, 4, 5};
const int numLeds = 5;

void setup() {
    // Initialize each LED pin as an output
    for (int i = 0; i < numLeds; i++) {
        pinMode(ledPins[i], OUTPUT);
    }
}

void fadeAndBrighten() {
    // Fade and brighten LEDs alternatively
    for (int brightness = 0; brightness <= 255; brightness++) {
        for (int led = 0; led < numLeds; led++) {
            analogWrite(ledPins[led], brightness);
        }
        delay(10);
    }
    for (int brightness = 255; brightness >= 0; brightness--) {
        for (int led = 0; led < numLeds; led++) {
            analogWrite(ledPins[led], brightness);
        }
        delay(10);
    }
}

void loop() {
    fadeAndBrighten();
}
```

