Experiment No. : 04

Statement : Fade and brighten 5 LEDs alternatively.

Date of Exp. : xx/xx/xxxx

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const int LED\_PINS[] = {2, 3, 4, 5, 6}; // Pins connected to the LEDs

const int NUM\_LEDS = sizeof(LED\_PINS) / sizeof(LED\_PINS[0]);

const int FADE\_DELAY = 100; // Delay between brightness changes

void setup() {

// Set the LED pins as outputs

for (int i = 0; i < NUM\_LEDS; i++) {

pinMode(LED\_PINS[i], OUTPUT);

}

}

void loop() {

// Fade in

for (int brightness = 0; brightness <= 255; brightness++) {

for (int i = 0; i < NUM\_LEDS; i++) {

analogWrite(LED\_PINS[i], brightness);

}

delay(FADE\_DELAY);

}

// Fade out

for (int brightness = 255; brightness >= 0; brightness--) {

for (int i = 0; i < NUM\_LEDS; i++) {

analogWrite(LED\_PINS[i], brightness);

}

delay(FADE\_DELAY);

}

}

