

FAQ

1. What is CODI6?

[CODI6](#) is a programmable controller for Addressable RGB (ARGB) strips, fans and other devices. It is based on open source Arduino UNO compatible board and provides 6 independently programmable ARGB channels to connect and control your ARGB devices. Gelid Solutions [RADIANT-D](#) Fan is a perfect mate for CODI6.

2. How do I program CODI6?

CODI6 is programmable via Arduino software, such as [Arduino IDE](#), Code Blender, B4R, and others. Please refer to [Quick Start Guide](#) for more details.

3. Which LED library do I need for programing?

FastLED or Adafruit_NeoPixel.

Please declare this in your code:

```
#include <FastLED.h>
or
#include <Adafruit_NeoPixel.h>
```

4. What parameters do I define for RADIANT-D fans?

Using FastLED and 3 fans, please define:

```
#define NUM_STRIPS 3 //number of fans
#define NUM_LEDS_PER_STRIP 9 //number of LEDs per fan
#define NUM_LEDS NUM_LEDS_PER_STRIP * NUM_STRIPS //total number of LEDs
```

In *void setup()* section, please configure your LED array as the following:

```
FastLED.addLeds<NEOPIXEL, 3>(leds, 0, NUM_LEDS_PER_STRIP);
FastLED.addLeds<NEOPIXEL, 5>(leds, NUM_LEDS_PER_STRIP, NUM_LEDS_PER_STRIP);
FastLED.addLeds<NEOPIXEL, 6>(leds, NUM_LEDS_PER_STRIP*2, NUM_LEDS_PER_STRIP);
```

You can replace NEOPIXEL with WS2811 also. Please refer to:

<https://github.com/FastLED/FastLED/wiki/Basic-usage>

<https://github.com/FastLED/FastLED/wiki/Multiple-Controller-Examples>

5. What parameters do I define for different device type installs?

For example, using a 6LED device, a 9LED fan and a 30LED strip, please define:

```
#define NUM_LEDS_DEV 6 //6LED device, number of LEDs
#define NUM_LEDS_FAN 9 //9LED fan, number of LEDs
#define NUM_LEDS_STRIP 30 //30LED strip, number of LEDs
#define NUM_LEDS NUM_LEDS_DEV + NUM_LEDS_FAN + NUM_LEDS_STRIP //total number of LEDs
```

In *void setup()* section, please configure your LED array as the following:

```
FastLED.addLeds<NEOPIXEL, 3>(leds, 0, NUM_LEDS_DEV);
FastLED.addLeds<NEOPIXEL, 5>(leds, NUM_LEDS_DEV, NUM_LEDS_FAN);
FastLED.addLeds<NEOPIXEL, 6>(leds, NUM_LEDS_DEV+NUM_LEDS_FAN, NUM_LEDS_STRIP);
```

6. How do I tell what pin assignment is used for ARGB headers?

ARGB headers are labeled as PWM3, PWM5, PWM6, PWM9, PWM10 and PWM11. The numbers correspond to the standard Arduino pin assignment for PWM outputs.

For example, if you connect your RGB device to the PWM3 ARGB header, it is assigned to the Digital I/O pin 3. And using FastLED, you have to point your RGB device to this pin with *FastLED.addLeds<NEOPIXEL, 3>* in LED array configuration.

7. How do I program LEDs in sequential order?

You can create a matrix to control LEDs in sequential order.

For example:

```
int db[] = {5,6,4,7,3,8,2,1,0};
```

And then replace all **leds[i]** by **leds[db[i]]** inside the main loop.

8. Where do I find documentation for FastLED, NeoPixel and NewPing libraries?

FastLED:

<https://github.com/FastLED/FastLED/wiki>

NeoPixel:

https://adafruit.github.io/Adafruit_NeoPixel/html/class_adafruit___neo_pixel.html

NewPing:

<https://bitbucket.org/teckel12/arduino-new-ping/wiki/Home>

For more details about CODI6 please refer to:

<https://gelidsolutions.com/thermal-solutions/codi6-argb-controller/>