## **LED Experiment ch4**



## www.ZENMCU.com

Draft 1 2023-01-25

Copyright © 2023 by Trenton Henry, All rights reserved

## **LED Experiment #4**

I received several cz43fmrgba8686 "OWire" RGB LEDs from Sparkfun today. They are neat devices, and very easy to control with minimal code. However, it is a 5V part and I was driving it with 3.3V so it was not full brightness, and blue is almost invisible in ambient light, and still very dim in low light.

These LEDs don't provide full RGB control, but they do provide 7 unique colors. And they have a diffused lense, which is nice. So if I can run these off 5V then I may be in business. However, only my USB boards have 5V. and the VBATT of my robot boards is 3 to 6 volts. So I don't really have a very reliable way to power these for my robots.

I could ignore blue and just use red, green, and yellow, but that kind of defeats the while purpose. I am probably better off just perfecting my SW PWM driver RGB LED scheme.

Still, I can use these to make a USB powered pixel grid. I can easily manage a 3x3 array of these, though what I'd use it for is unclear. If I step up to a 20 pin package I might possibly achieve a 4x4 array. Or I could make a USB traffic light. Or a USB mood light. If I could drive 12 of them I could make an analog clock. Or they can be status indicators for other USB gadgets. Like for small keypads or midi things.

End