

**CHIPS Newsletter Vol 8**

Thursday, October 7, 2010 11:08 PM

From: "chips@elproducts.net" <chips@elproducts.net>
To: "Chuck Hellebuyck" <chuck@elproducts.com>

CHIPS newsletter

Vol 8 / October 7, 2010



Official Newsletter of *Chuck Hellebuyck's Electronic Products*

<http://www.elproducts.com/>

Topics

Book Signing at Microchip Masters
MPLABX
Breadboard Modules
Fritzing
Conclusion

Wow did I get behind in releasing this newsletter. If I charged for it I'd be issuing refunds. I agreed to help write some of the documentation for the CHIPINO module and it took all my free time. I kept putting off the newsletter and now I am a month behind. Anyway, I'll make it up with back to back versions. In this edition I'm going to cover some things I learned while attending the Microchip Masters Conference at the end of August.

Book Signing

I did a book signing at Masters and I met several of my readers in person and it was a great thrill for me. Sometimes I write in a bit of a vacuum with only seeing a few email comments in return. To actually meet a reader and hear how far they've progressed with C or BASIC is always a great story. I was also able to get some initial feedback on my Volume 3 book which will focus on creating easier to use libraries of functions. I

received a lot of email asking for this and it does save a lot of time. I focused on creating functions I commonly use in my projects and improved on some I included in Volume 1 and 2 of the Beginner's Guide to Embedded C Programming series.

The feedback I've received so far is all positive. I also was asked by several people if I plan to release a book someday on how to use Microchip's MPLAB and all its features. Interesting thing is, I've already started some of that but I've put it on hold when I heard about Microchip's new IDE called MPLAB X. It was introduced at Masters to the public so I can talk about it here. It's still in beta stage but now I have to decide if continuing with an MPLAB 8 (which is what the current version is now referred to) book is wise or not.



Volume 3 Cover

MPLAB X

You can get more information on MPLAB X at the link below.

http://microchip.wikidot.com/mplab:_start

MPLAB X is a plugin to Netbeans development platform which is based on Java. What this means is you will be able to run MPLAB on Windows, Linux or Mac computers in the future. I'm an iMAC user so I like this move. The layout of MPLAB X is similar to MPLAB 8 but there are some differences which will take a little time to get use to but there is some great documentation at the link above to help you make the transition.

Breadboard Modules

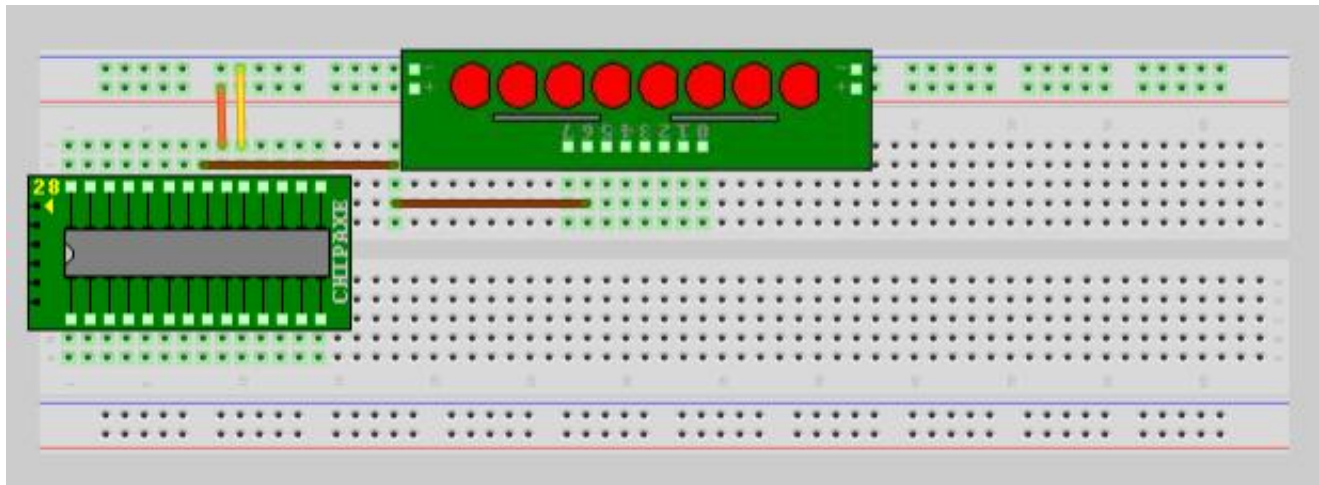
Speaking of transitions, many years ago I decided to focus on writing my books and sold off my hardware business to a friend of mine who launched BeginnerElectronics.com. All the breadboard modules I had designed were only available there. I still have a bunch of my own that I use from time to time especially when using the CHIPAXE breadboard modules. Well now the Chipaxe team has added those products to their product offering. I also understand they are working on new versions that will also be converted into shields for the Chipino and Arduino. Stay tuned for those as I'll probably use some of them in future books.

Breadboard Modules

Fritzing

One of the tedious jobs in writing a book is to create the graphics for the projects. A schematic isn't always enough and getting a good picture to show up well in black and white isn't an easy tack either. I was introduced to a great open source drawing software called Fritzing which you can download from [www.Fritzing.org](http://www.fritzing.org). The software allows you to build a breadboard version of your project and then print it out or export it as a .jpg or even .pdf.

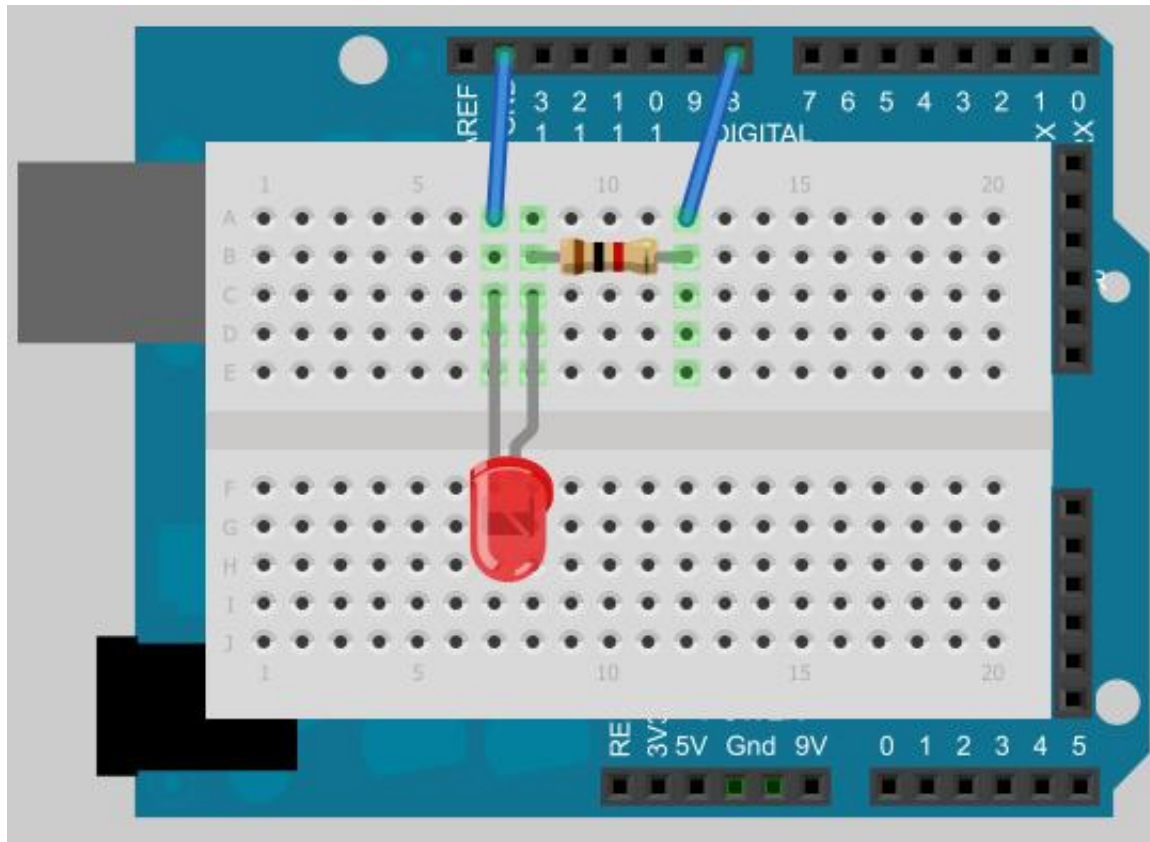
The really great feature is they made the components to scale so when you print out a picture of the breadboard, it matches up to an actual breadboard. Some people have released thin cards with Fritzing layouts on them so you can place the card on top of a breadboard and then poke the components through the card, into the breadboard to build the circuit.



Fritzing Flash LED Schematic

I've had a bit of a learning curve trying to create custom components and the resolution of the exported graphics is not as good as I'd like but I've found if I do a screen capture I get some great pictures for including in newsletters, application notes and books.

The real advantage you'll find with Fritzing is the wiring. The breadboard will change connection lines to green to show where wires and components are making connection. When you place a wire, you place one end in a breadboard hole and then stretch it to the needed length at the other place on the breadboard you need to connect. You can change the color of the wire after or before you place it. The wire will route at any angle, not just straight lines. You can see below a drawing I made for the Chipino manual. Try it out and let me know how you like Fritzing.



Chipino Proto-Shield LED Project

Conclusion

That's all I've got for this newsletter but I'll have more in the next one sent right behind this one so I can catch up to my own schedule. If you have any questions or comments send them to me at chuck@elproducts.com

[Unsubscribe from CHIPS Newsletter](#)