**Advice and Free Tools for Drawing Circuit Schematics**

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## General Advice

Making nice circuit diagrams is a bit of an art form. These very helpful guidelines comes by way of the legendary Horowitz and Hill. Also, see this wonderful list (engineering rant?) on stackexchange about how to make good schematics

## Drawing Tools

**Schemeit**: (http://www.digikey.com/us/en/mkt/scheme-it.html)

-html based, very easy to use
-sign-in to digikey account (free) in order to save drawings as pdfs
-universal favorite of circuits alumni

EagleCAD (https://www.autodesk.com/products/eagle/free-download)

-professional level schematics and PCB layout (used in the 'real world')
-massive library of parts
-a learning curve to climb, fairly easy to learn (great tutorial from Sparkfun here)

**CircuitLab**: (https://www.circuitlab.com)

- html based schematics
- includes circuit simulator
- sign-up for free account to save/download drawings

**Schematics.com** (www.schematics.com)

-web-based interface, easy to use
-can save and share designs, and export good quality .png
-have to sign up/sign in with google/fb/etc.

**CircuitTikz**

General info and examples: http://www.ctan.org/pkg/circuitikz
TeX Package download: http://www.texample.net/tikz/examples/circuitikz/

This is sort of an 'expert mode' package used with TeX (an incredibly powerful typesetting program, especially geared for technical writing that includes lots of equations and and figures).CircuitTikz is a package used with TeX. Drawings produced are professional quality, but you must code your circuit in text programming, then compile it to actually produce the drawing.