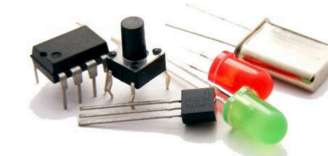
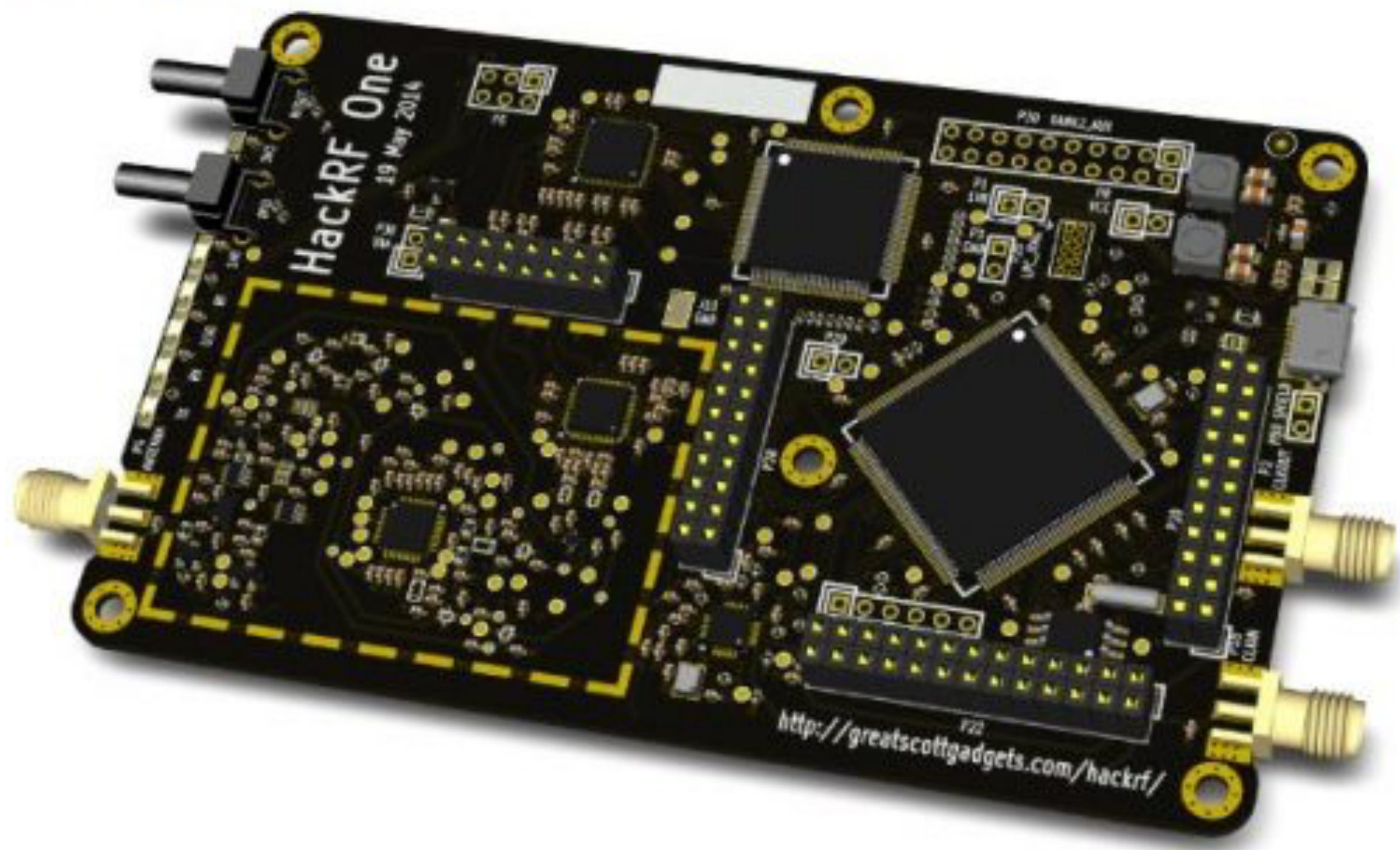




PCB设计

- KiCad设计工具介绍



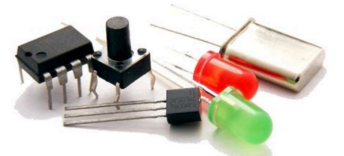
KiCad

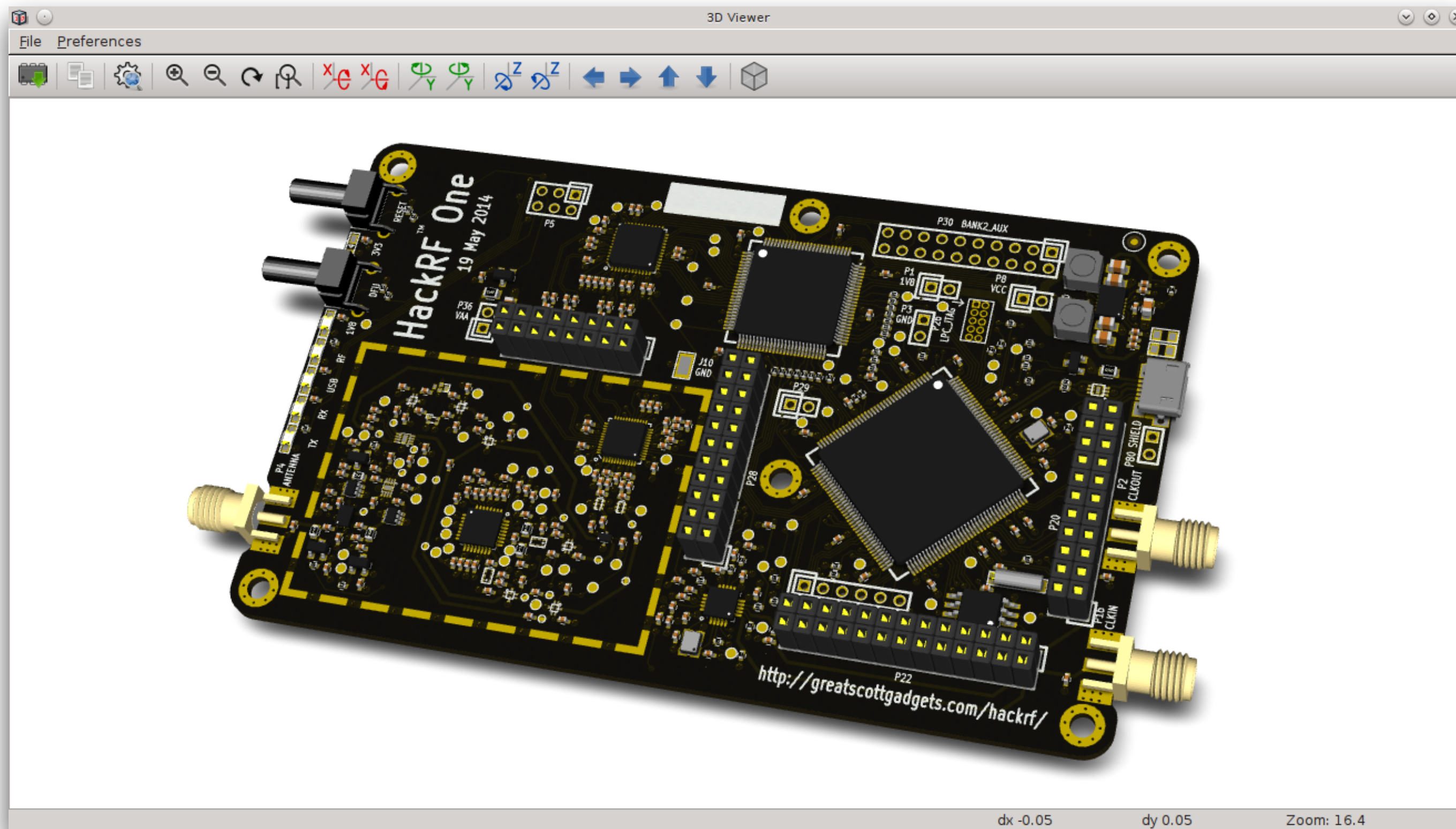
- 开源、免费
- 支持多平台



KiCad Layout Editor

Original author(s)	Jean-Pierre Charras
Developer(s)	KiCad developers ^[1]
Initial release	1992; 26 years ago ^[2]
Stable release	5.0.0 ^[3] / 22 July 2018; 2 months ago
Repository	https://git.launchpad.net/kicad 
Written in	C++ ^[4]
Operating system	Windows, macOS, Linux, FreeBSD
Available in	8 languages ^[citation needed]
Type	EDA
License	GNU GPL v3+ ^[5]
Website	www.kicad-pcb.org 



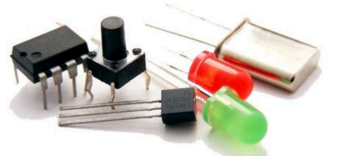


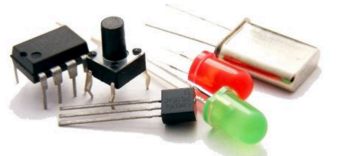
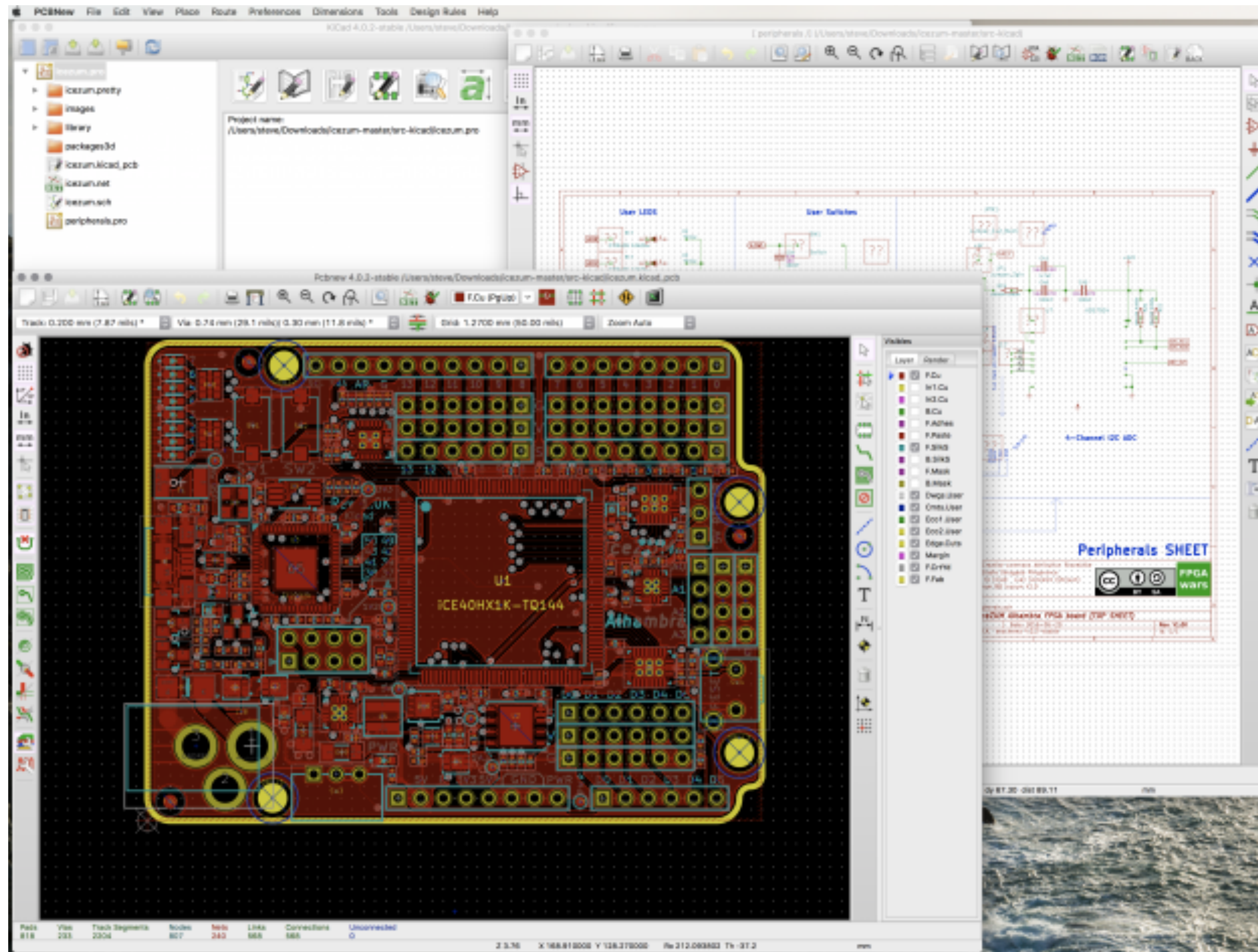
DESCRIPTION INCLUDES **FEATURES** DOCUMENTS

- 1 MHz to 6 GHz operating frequency
- Half-duplex transceiver
- Up to 20 million samples per second
- 8-bit quadrature samples (8-bit I and 8-bit Q)
- Compatible with GNU Radio, SDR#, and more
- Software-configurable RX and TX gain and baseband filter
- Software-controlled antenna port power (50 mA at 3.3 V)
- SMA female antenna connector
- SMA female clock input and output for synchronization
- Convenient buttons for programming
- Internal pin headers for expansion
- Hi-Speed USB 2.0
- USB-powered
- Open source hardware

Tags

GREAT SCOTT GADGETS HACKRF SDR SOFTWARE DEFINED RADIO WIRELESS



















下载安装及教程

<http://www.kicad-pcb.org/download/>

Download

KiCad 5.0.1 was released in October 2018. [See the announcement on the blog.](#) Details on the availability for your platform can be seen for each of the platforms below.

Select your operating system or distribution

 Ubuntu	 MacOS	 Windows
 Debian	 Linux Mint	 Arch Linux
 Fedora	 openSUSE	 Flatpak
 Snappy	 GNU Guix	 Gentoo
 Sabayon	 Source Code	

Home / Libraries / Download

Download Libraries

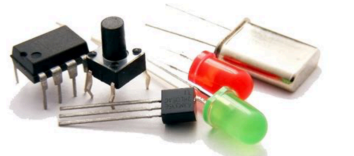
Library Downloads for KiCad 5.0

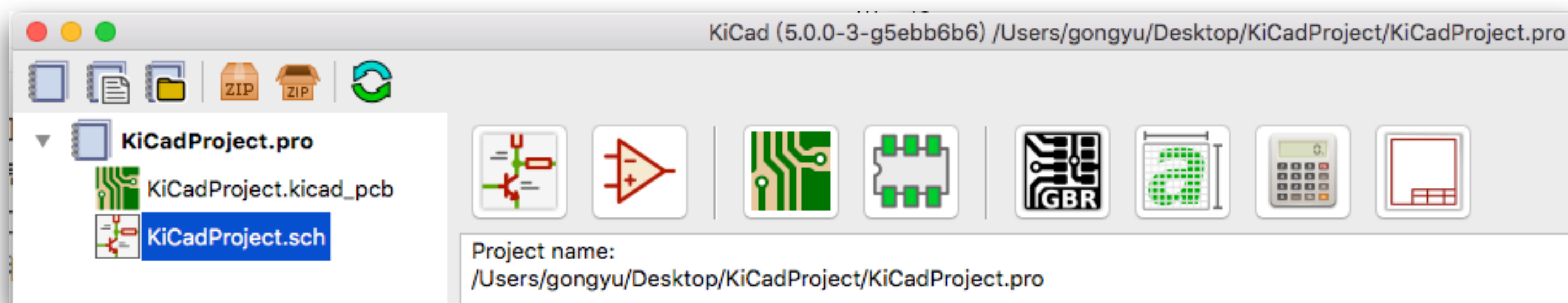
The official KiCad libraries are available for download at <https://kicad.github.io>. Library data are provided as compressed archives of the individual libraries within the following categories:

- Schematic symbols: <https://kicad.github.io/symbols>
- PCB footprints: <https://kicad.github.io/footprints>
- 3D models: <https://kicad.github.io/packages3d>

Library data are updated weekly, and track the [KiCad GitHub repositories](#).

At the moment, libraries are included along with KiCad installation. You will only need to download the libraries above if you want to use a newer version than the one offered with your KiCad version. Libraries can also be kept up to date with the latest additions by [cloning](#) the library repositories using Git. Tracking the library repositories using Git means that only the *changes* to the libraries need to be downloaded, rather than retrieving the entire library set each time.





1. **KiCad:** 项目管理，通过这个功能可以直接启动其它的功能；

2. **Eeschema:** 原理图编辑器和元器件编辑器；

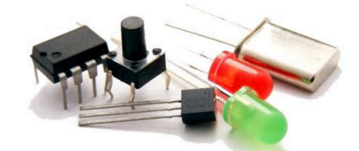
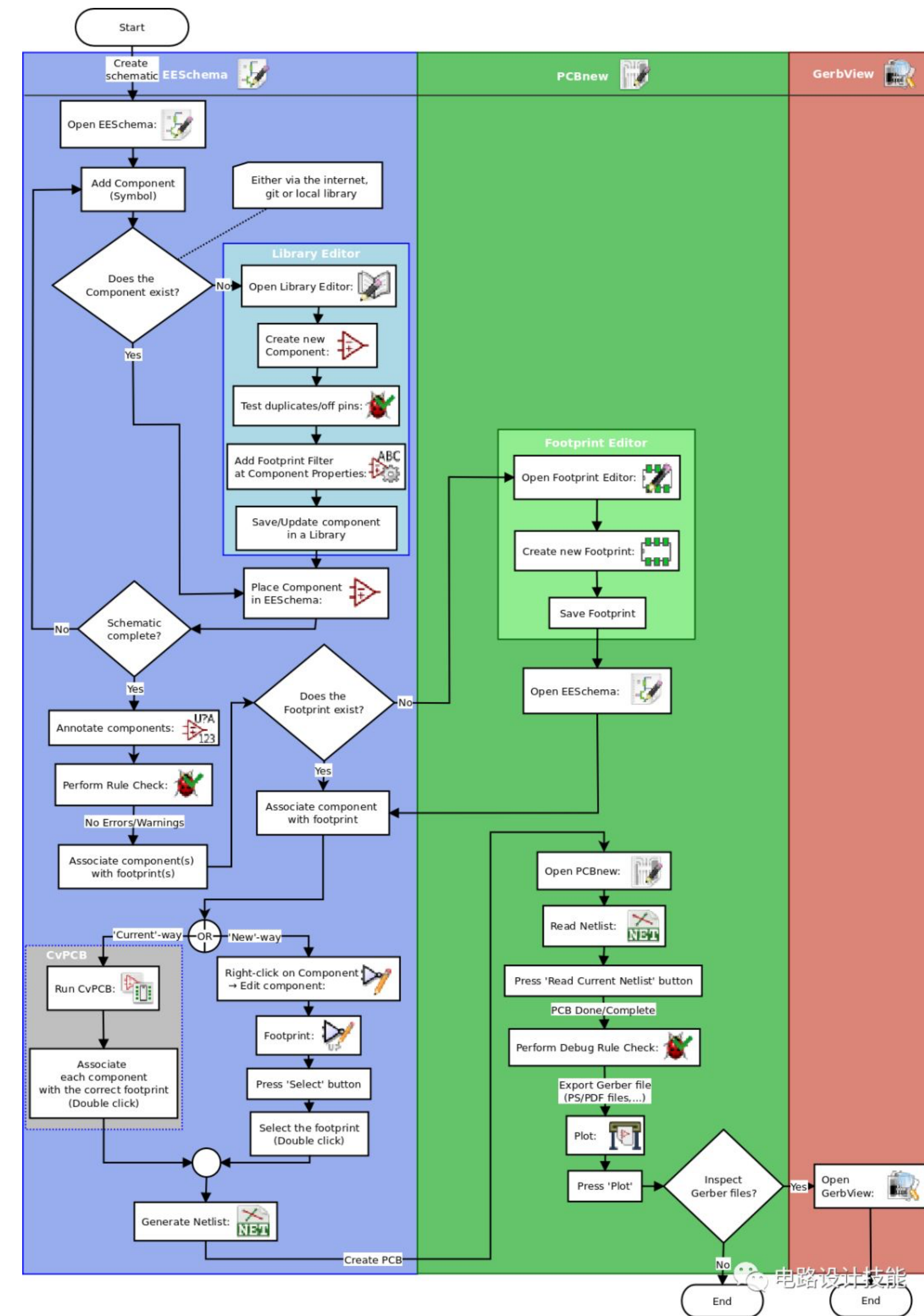
3. **Pcbnew:** 电路板布局布线编辑以及封装库编辑器；

4. **GerbView:** Gerber查看。

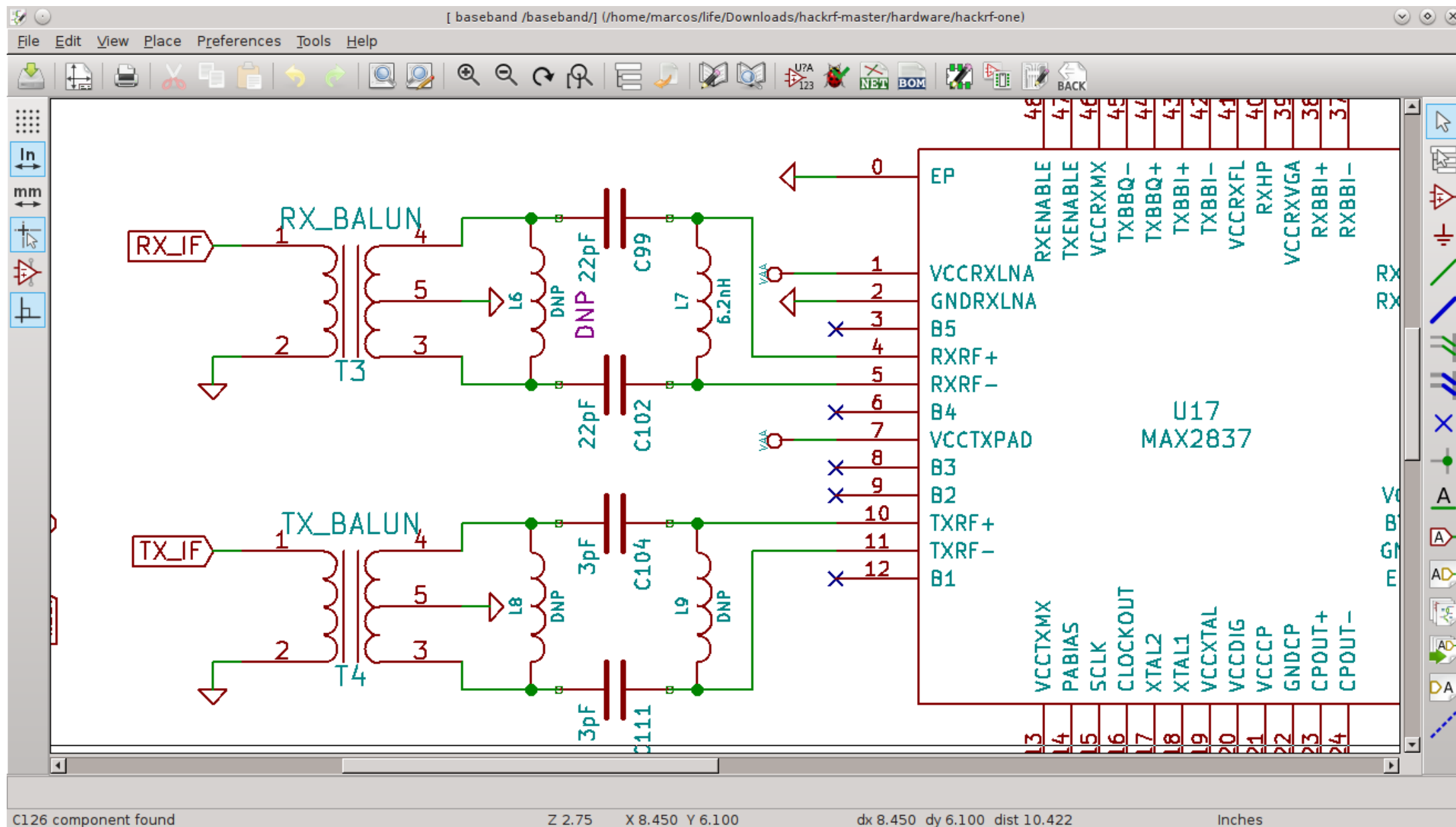
5. **Bitmap2Component:** 可以制作图标的元器件制作工具，它能够从一个Bitmap图像来创建原理图元器件或封装库；

6. **PcbCalculator:** 很有用的一个计算器，用来计算稳压器、线宽和电流的关系、传输线等；

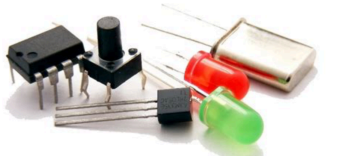
7. **PI Editor:** 页面布局编辑器。



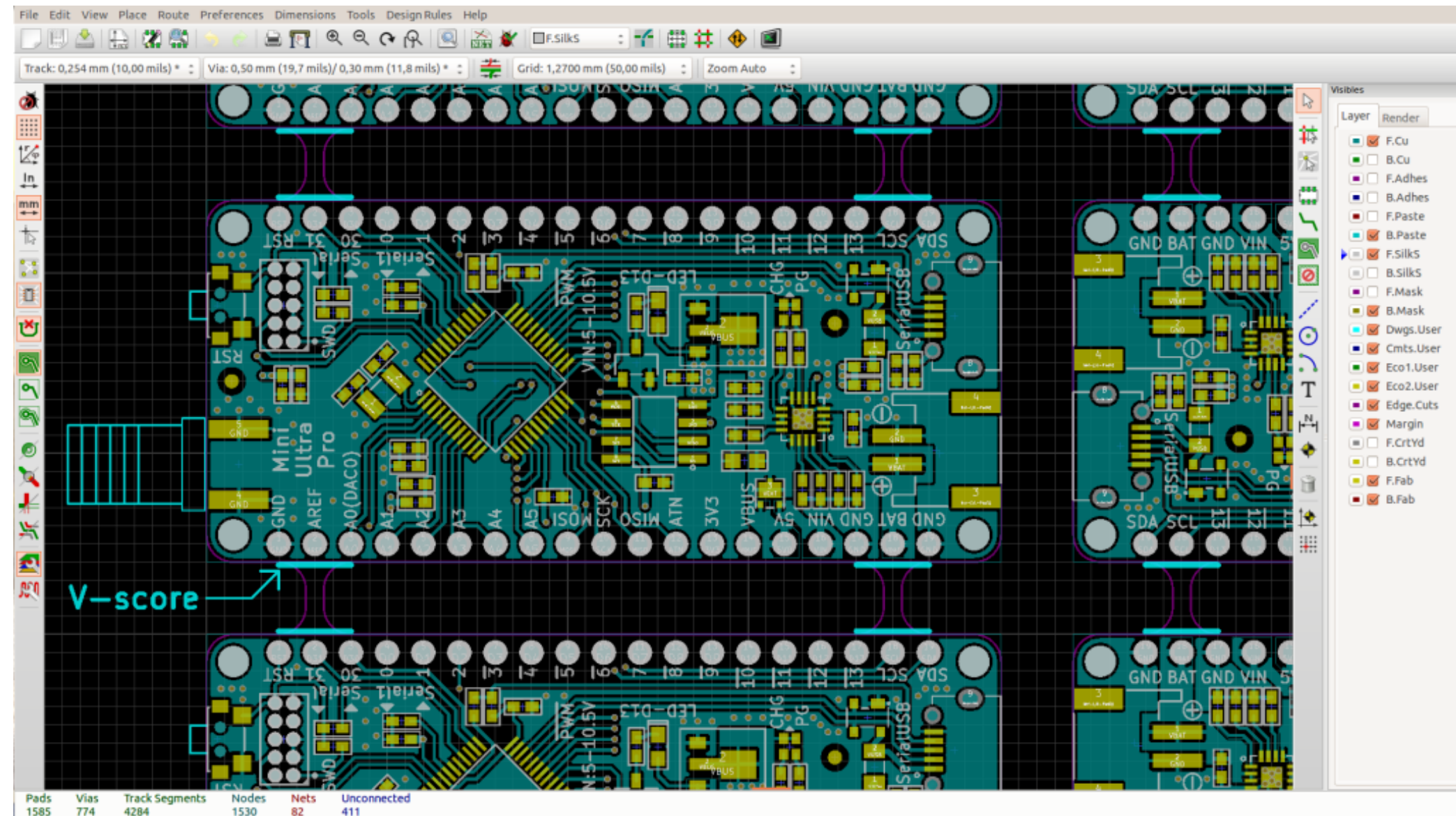
原理图-Eeschema



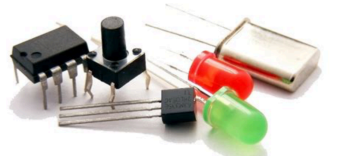
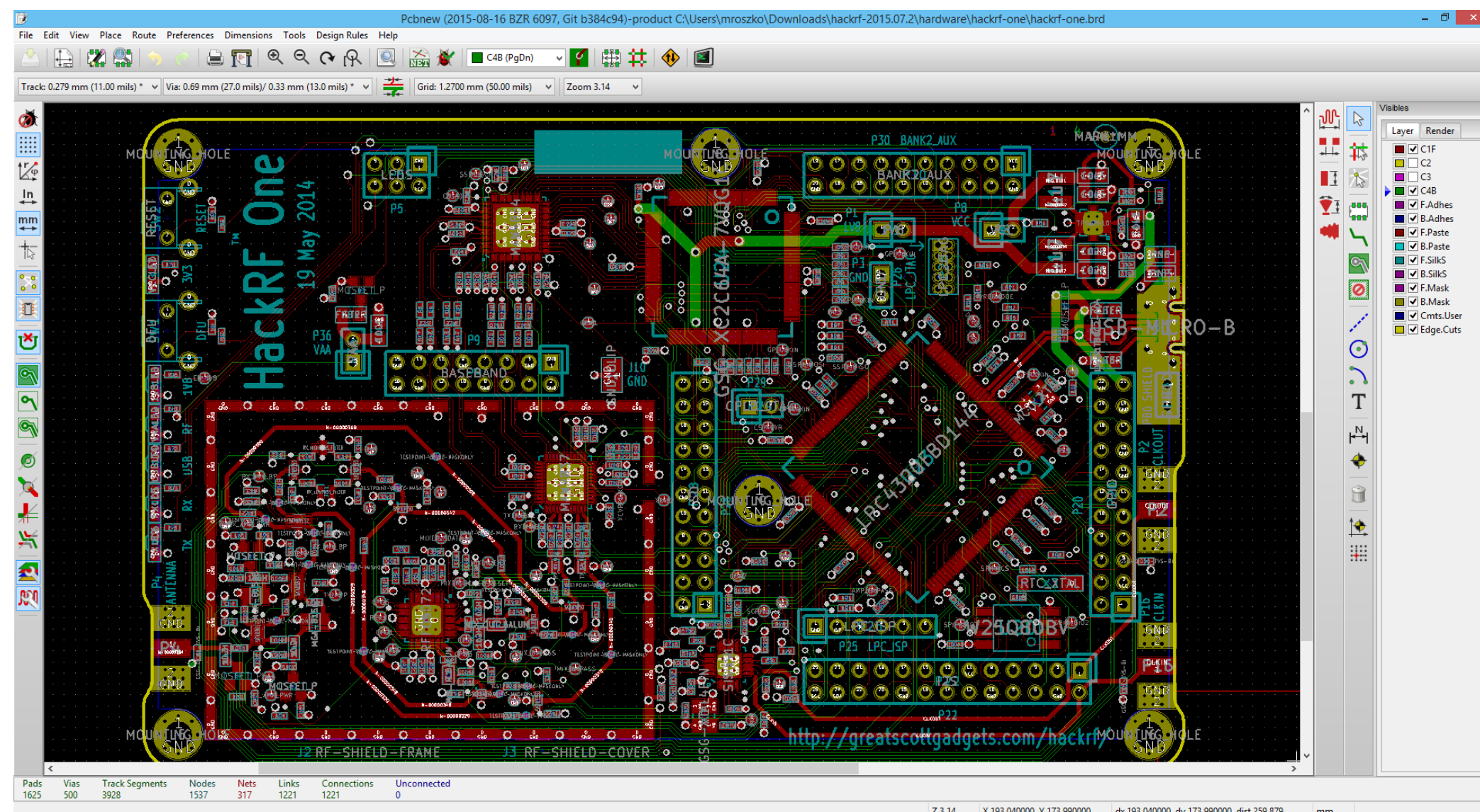
- 1.创建工程和文件;
- 2.设置图纸大小: 根据图纸的复杂程度、各元器件的原理图库, 一般A4比较合适, 一个设计可以采用多页;
- 3.设置文件环境: 格点大小、格点属性、光标属性、电气格点属性、图纸颜色等;
- 4.加载元器件符号库: 如果有已经构建好的符号, 则直接加载来用, 如果没有的话需要依照数据手册进行构建
- 5.放置元器件: 合理化、按照信号流程、可以翻转、旋转放置, 方便连线、清晰理解;
- 6.原理图连线: 减少交叉, 尽量少用最好是不用文字的Net进行标记;
- 7.调整修改原理图: 网标有没有重复、错误的连接、虚连接;
- 8.ERC检查(电气规则检查): 电气连接上的错误;
- 9.报表输出: 产生用于布局布线的Netlist、用于采购元器件的BOM清单;
- 10.文件输出: 保存、备份、导出到PDF或其它格式、打印。



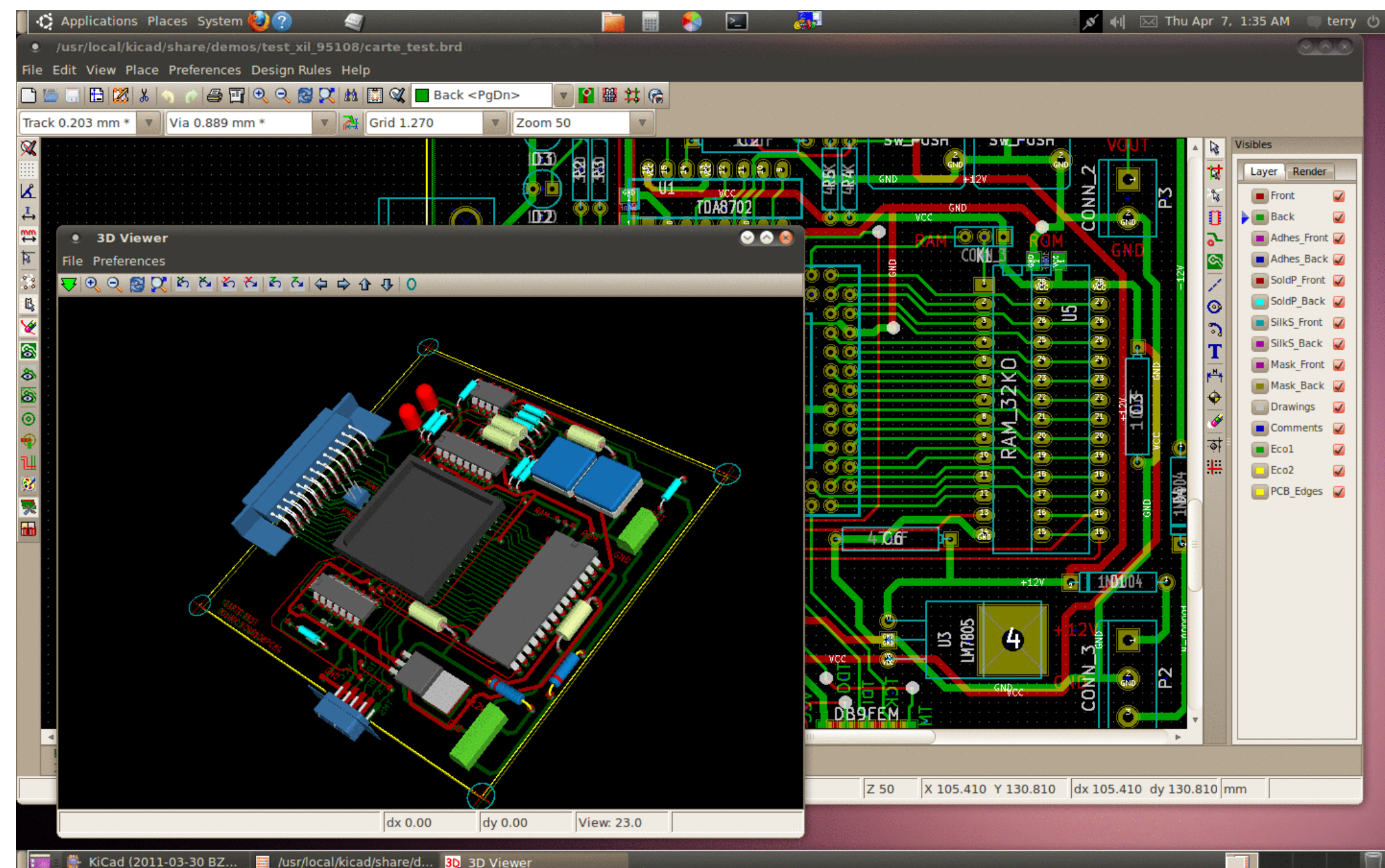
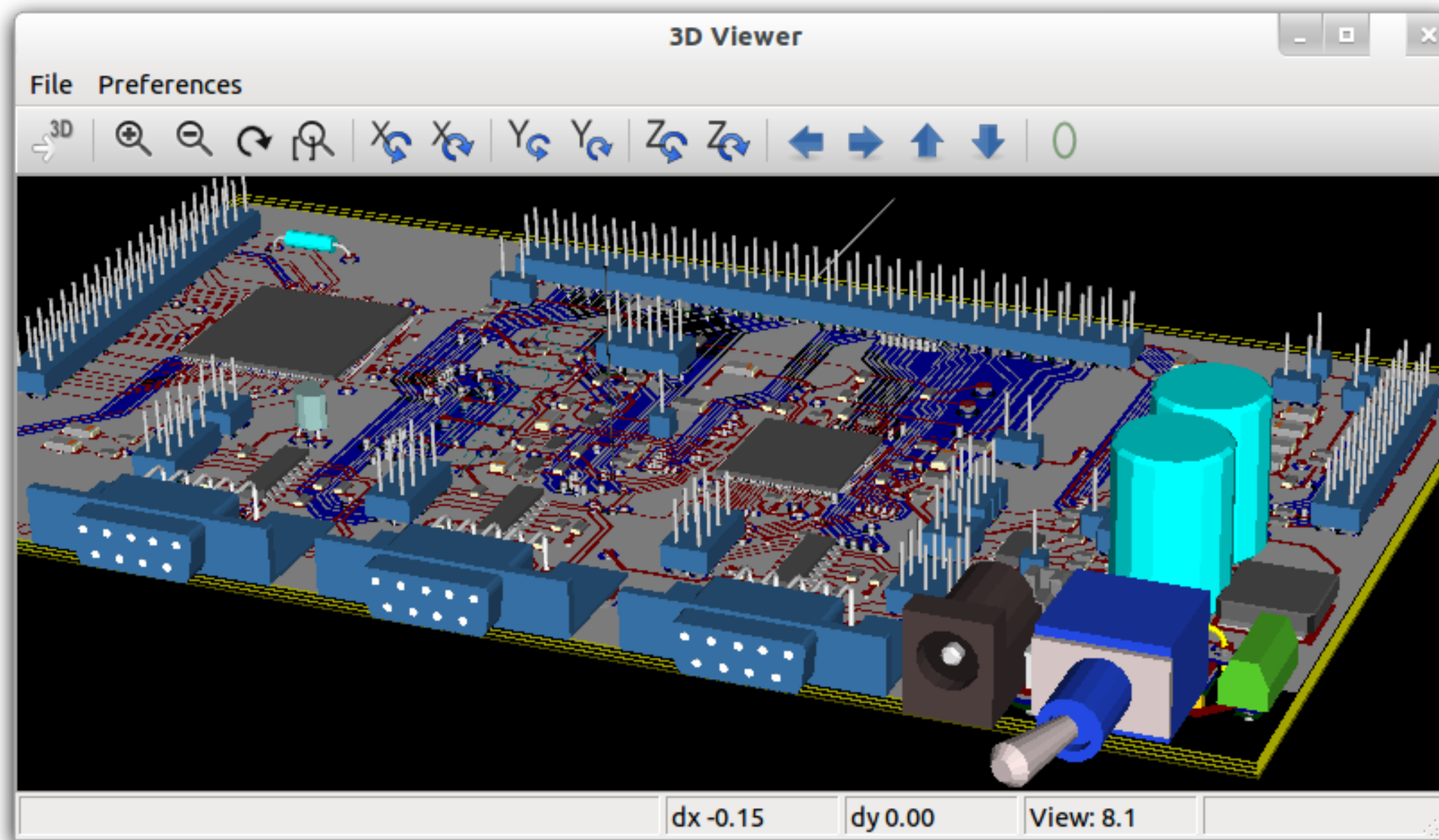
PCB设计 - Pcbnew



1. 按照项目的需求确定PCB板的物理大小、关键器件的位置、板子的层数并定义各层的功能
2. 加载原理图生成的Netlist（网表），根据一系列的规则进行元器件的布局，可以通过3D视图查看板子的布局结构是否合理
3. 根据PCB加工厂商的制造规范设定PCB的布线规则 - 线宽、线间距、过孔大小、丝印字体及大小等等
4. 关键信号线走线 - 电源、时钟、差分信号、敏感的模拟信号....
5. 其它信号线走线（自动布线可以用第三方的Autorouter）
6. 铺地/电源
7. DRC检查
8. 对照原理图上的连线逐线高亮检查
9. 调整丝印
10. 生成给PCB加工厂需要的Gerber文件



3D视图



3DCONTENTCENTRAL

Log In Global - English

FIND REQUEST UPLOAD ESP32

BECOME A SUPPLIER SIGN UP!

Results 1-10 of 12 for ESP32

< Previous Page 1 2 Next Page > Results per page: 10 Sort by: Best Match

Files from:

- Suppliers
- Individual Contributors (supplier related)
- Individual Contributors (no supplier given)

Supplier View by: A-Z

- User Library (7)
- Laird Technologies (2)
- VEX Robotics (2)
- APPLICATION LED (1)

Category View by: A-Z

- Electrical Components (8)
- Electrical Protection (2)
- Electronic connectors (2)
- Robotic Accessories (2)
- Robotic Tooling (2)
- Robots (2)
- Wheels (2)
- Lenses (1)
- Light Sources (1)
- Motors - General (1)
- Optics (1)
- Pneumatics (1)

Tag

- esp32 (4)

ESPProg - ESP8266 & ESP32 Programmer with Autoreset

Part Number: ESPProg Rev1.1
Supplier: iohippo
Description: https://www.tindie.com/products/iohippo/esprog-esp8266-and-esp32-programmer-with-autoreset/

Category: Electrical Components
Tags: esp32, esp8266, esp8285
Contributed by: M Hamit YANIK

Configurations? No
Downloads: 2
Added on: 30 Sep, 2018

ESP-WROOM-32 - ESP-32 ★★★★★

Part Number: ESP-WROOM-32
Supplier: Espressif
Description: Espressif Systems ESP-WROOM-32 module 3D STP and IGS model files. Also WRL file included for KICAD pcb. Follow me on Twitter: @hamityanik

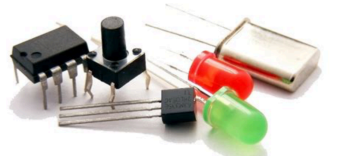
Category: Electrical Components
Tags: esp32, espressif, espwroom32
Contributed by: M Hamit YANIK

Configurations? No
Downloads: 1051
Added on: 22 Jan, 2017

ESP-WROOM-32 ★★★★★

Supplier: Espressif
Description: The ESP32-based Wi-Fi/Bluetooth communication module.

Category: Electrical Components
Configurations? No



设计资源

- ❖ KiCad的官方网站: <http://www.kicad-pcb.org/>, 从这个网站可以看到所有与KiCad的信息 - 软件下载、库下载、使用文档等
- ❖ 简单的教程“一步步跟我学KiCad”: <https://learn.sparkfun.com/tutorials/beginners-guide-to-kicad/all>, 这是Sparkfun上的一篇针对KiCad初学者的文章
- ❖ KiCad 5.0的官方库资源: 原理图库 - <https://kicad.github.io/symbols>
- ❖ KiCad 5.0的官方库资源: 封装库 - <https://kicad.github.io/footprints>
- ❖ KiCad 5.0的官方库资源: 3D模型库 - <https://kicad.github.io/packages3d>
- ❖ 第三方库资源: Samacsys - <http://www.samacsys.com/kicad/>
- ❖ 第三方库资源: Ultralibrarian - <https://www.ultralibrarian.com/solutions/cad-vendors/kicad-pcb-libraries>

Home / Help / Tutorials

Tutorials

1. Tutorials in English
 - i. Textual Tutorials
 - ii. Video Tutorials
 - iii. Reviews
2. Tutorials in Greek
3. Tutorials in Polish

Several text-based tutorials as well as video tutorials have been put together by various KiCad users. Here you can find a limited subset.

Tutorials in English

Textual Tutorials

- [KiCad Getting Started Tutorial](#)
- [Wayne and Layne's Tutorials](#)
- [Curious Inventor's Tutorials](#)
- [B. A. Bryce's Tutorial](#)
- [Happy Robot Labs: 3D KiCad Parts Using OpenSCAD and Wings3D](#)
- [Simulating KiCad Schematics in Spice](#)
- [Hierarchical schematics as schematic buildingblocks](#) by Bernd Wiebus. (Original in german)
- [Notes on using Wings3D](#) by Bernd Wiebus (Original in german)
- [Kicad: Techniques, Tips and Work-arounds](#)
- [KiCad Scripting Examples](#)
- [KiCadHowTo.com from SheepdogGuides](#)

Video Tutorials

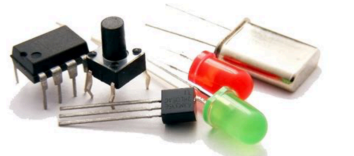
- [A KiCad Quick-Start Tutorial](#) by Windsor Schmidt (~20 mins)
- [Video series by Ashley Mills](#), complete with building from source and designing a board (12 parts ~5 hours)
- [Videos by Chris Gammell](#) at Contextual Electronics (7 parts ~2.5 hours)
- [Fast screencasts without audio](#) by Matt Venn, useful for workshops (5 parts ~15 mins)
- [Lots of short videos](#) by My 2µF, mostly on PCB layout
- [Videos by Xplore Labz](#) on creating an Arduino Uno
- [Videos by Yoonseo Kang](#)

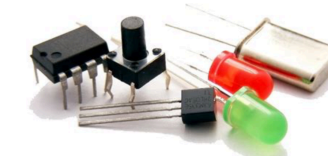
Reviews

- [Review by EEVblog Part 1](#)
- [Review by EEVblog Part 2](#)

Help

- Getting Started
- Documentation
- Tutorials**
- Report a Bug
- Upgrading
- File Formats
- Known System Related Issues
- System Requirements





关于贸泽电子 - www.mouser.cn

The screenshot shows the Mouser Electronics website interface. At the top, a blue banner features the slogan '在MOUSER 采购很EASY!' and three key benefits: '数百万产品 一站式购齐', '接受微信支付 付款更简单', and '上海客服 本土支持'. Below this is a navigation bar with the Mouser logo, '联系Mouser (上海) 400-821-6111 | 反馈', and options for '产品', '制造商', '更多', '订单历史', '登录', '注册', and a shopping cart icon. A search bar is located below the navigation bar, with filters for '全部', '物料编号/关键字', '有库存', and 'RoHS'. The main content area includes a '产品类别' sidebar with categories like 'LED照明', '工业自动化', '工具与供应', '工程工具', '无源元件', '内存和数据存储器', '电线与电缆', '电路保护', and '电源'. The central banner promotes '额满免运费*' (Free shipping when order value reaches 175 yuan) and '关注贸泽微信 掌握最新资讯' (Follow Mouser WeChat for the latest news). Below the banner is a '最新产品' (New Products) section featuring logos for Texas Instruments, Infineon, Intel, and Molex.

- 与非网/摩尔吧多年合作伙伴
- 全球领先的电子元器件授权分销商
- 700家原厂/500万现货库存
- 小批量采购，170元免邮费
- 1-2周交货

