

VOICES

15 steps to starting your own electronic-kit business

After Limor Fried received her master's degree in computer science and electrical engineering from the Massachusetts Institute of Technology in 2004, she started her own business designing and selling electronic kits, targeting customers who want to explore embedded-microcontroller-based designs or create their own GPS (global-positioning-system)-based systems, among others. She has made Adafruit Industries into a successful electronics-kit business, and, based on her own experience, offers these 15 practical steps for engineers who dream of starting their own kit business.

Fried based her rules on the following assumptions: First, there is only one of you. Multiple people in a business make everything far too complex. Second, these rules assume that you have a job and can provide your own seed capital. Third, you are computer-literate, and the Internet doesn't scare you. If those assumptions about you are correct, read on for the rules.

1 You need expertise, a skill, or an interest that you can parlay into a product, such as designing the hardware for a GPS unit.

2 Think of a memorable name for your company.

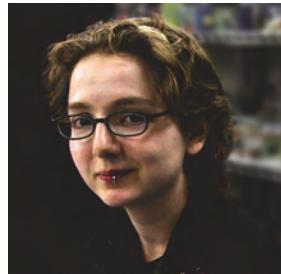
3 Register a domain name based on your company name, including the .net and .org versions, as well as the .com. Then file a DBA (doing-business-as) document. Open a bank account and get a credit card under your DBA name.

4 Get a digital camera and start learning how to take good pictures of your projects, which will ultimately become your products.

5 Get two to four projects under your belt. Purchase all the parts on the

business bank account, which makes your accounting much easier than if you rely on stuffing receipts into a box. This step can take two to 12 months.

6 Take photos of your projects, which are now your products. These photos are important to communicate to your audience what you and your projects are all about. Be prepared to spend hours learning what makes a good product photo and how to take it. Use video if that's what it takes to communicate your products' features and capabilities. Come up with a "money shot," the one photo that perfectly explains your project. Don't just take a picture of a PCB (printed-circuit board); take a picture of what the project allows you to do—for example, can you use it to put on a light show?



7 Put basic documentation of your project online. You can use the Wordpress.com or the instructables.com site. Put the picture at the top of the project page. Below that, place a one-paragraph description of the project with specifications. For example, if you built a DMX-controlled RGB LED light, your paragraph should describe how bright it is, the DMX-control functions, how many LEDs it has, and why it's innovative. People who will give you publicity are busy, and you should make it as easy as possible for them to copy and paste your photo and description to their blog posts. Repeat this step for each project.

8 Fill out the rest of your Web site with information about yourself to give visitors a sense of who you are. Include your e-mail address with a comment, "If you're interested in purchasing one of my products, drop me a line."

9 Now, you're ready to look for traffic to your site. Send a short e-mail with a link to your site and a two-sentence description to blog authors who would be interested, such as those at www.makezine.com. Also, post to forums for your type of do-it-yourself projects and kits, but don't spam them.

10 Look at your Web-site statistics and read all

your comments from visitors. Find out what interests them.

11 Find a project that is easy to sell or re-create. Figure out what it would cost to make 100 units, based on the best component pricing. Allow for a 40% profit, or a markup of approximately 66%. Now, add the markup again. This total is your retail cost. So, if your project costs \$10 in parts, its wholesale price would be \$16.50, and its retail price would be \$27.50. A \$25 to \$75 retail-price range for your projects is a good one to start with.

12 Buy enough parts to make 25 projects or kits. Put PayPal "buy-now" buttons on the project's Web page. Decide whether you want to sell internationally; it's more expensive, but it opens up your market.

13 Create a support network for your new customers by creating a forum or mailing list. Answer customers' questions only once; then, place them into the frequently asked questions section or documentation. Because you've added that 40% retail margin, you can now look for some resale outlets.

14 Repeat and refine steps 6 through 12. Try to release a new project every few months. Focus on improving your designs and your business flow. As you expand, you'll be able to look into hiring help, upgrading your book-keeping, and buying equipment. But always keep an eye on your ...

15 Profit!

—by Margery Conner