

Eight Tips to Ensure Your Hardware Startup will Succeed

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by [Haileyasaurus](#) August 04, 2021 15:00 Central European Summer Time [0](#)

It's a long journey to take a hardware product from idea to market. That journey becomes even longer, more stressful, and more expensive if you end up taking the wrong path. I want to share eight tips with you that will speed up your journey, and make it less expensive, too. Many of these ideas may not seem intuitive to you, but I believe they are all absolutely essential to achieve ultimate market success.

1. Focus Earlier on Sales and Marketing

Are you neglecting the most important part of launching your startup - sales and marketing? Most hardware entrepreneurs put all their energy into product development, but it's a mistake to think that you can't begin selling or marketing your product before you have it ready to deliver. The earlier you start these activities the better off you will be in the end.

Sales and marketing can also be intimidating and scary for many entrepreneurs - I say this from experience. I was terrified of sales; it was completely out of my comfort zone. But the truth is, if you want to succeed as an entrepreneur you have to leave your comfort zone! If an introvert like me can call on large retailers, run a tradeshow booth, and manage a large team of sales people, so can you.

Another option is to bring on a co-founder with sales and marketing experience. It can be advantageous to have a team comprised of a technical founder, plus someone with sales and marketing experience. Whether you have co-founders or not, I recommend that you hire independent sales representatives in your product's industry. Sales reps work on commission, so you only pay them after your customer pays you for any sales. This arrangement can really help with cash flow.

2. Get Real Sales Data as Soon as Possible

It is easy to believe that positive comments about your product from "potential" customers is proof that your product will sell. Is everyone you know saying your product will sell really well? Don't make the mistake of believing them! No one can know if your product will sell well until it is actually for sale. Until someone makes a purchase, with real money, everything is just speculation. What you need instead is real sales data. You want this data as soon as possible, but it takes money and a lot of time to even have a product to actually sell.

Crowdfunding is a great intermediary solution. Backers put actual money down on your product, so you can use this as actual sales proof. They are putting real, hard-earned money down to get your product, which is massive validation!

3. Build an Online Community Right Now

If you haven't begun building an online community around your product, do so right now! It really is the best way to both market and eventually sell your product. You should grow your online community at the same time as you develop your product. Building an online presence takes time, so the sooner you start the better. Having an online audience of real people is so incredibly valuable. For example, you can collect feedback from them about your product during the development process.

It is also essential for you to already have a large contact list if you are going to launch a crowdfunding campaign. You will never get funded without bringing your own interested audience to help "kick start" your Kickstarter campaign. Once your product is ready for sale, you can sell it to your existing online community full of people who are ready to buy.

One word of caution – do not focus all of your online audience building efforts on social media platforms. Never make your Facebook page, for example, the only way for your customers can find you are contact you. What happens if you get locked out of your Facebook or Twitter account? This happens frequently even when an account did not violate any of the site's rules. There is little to no recourse for business owners if this happens.

This doesn't mean you shouldn't use social media, but be sure to focus on driving your social media visitors to your own website. Then, collect their email address. Unlike social media followers, an email address is a real asset that you actually own.

4. Don't Overpromise to Your Customers

There's nothing worse than running a successful crowdfunding campaign and then failing to deliver your product to backers. Unfortunately, many campaigns have ended up this way. Although Kickstarter reports that only 9 percent of their campaigns fail to deliver rewards to backers, that percentage is certainly much higher for hardware startups. The more complex the product, the higher the fail to deliver rate will be.

To avoid this, never promise to deliver on something until you have it actually in your hands! It is wise to test out your product yourself before you promise anything. This doesn't mean it's a bad thing to have customers, retailers, or investors interested in your product early on. You don't want to ignore sales or customers until you have inventory. But you want to keep customers accurately informed about your progress. Don't promise to deliver if it isn't yet possible. Talk with various experts that have done it before to get their feedback on your proposed development and production schedule before you commit to any dates with customers or investors.

5. Plan for the Complexity of Scaling for Mass Manufacturing

The most neglected step in launching a new hardware product is scaling from the prototyping stage to the mass manufacturing of your product. Scaling up to mass manufacturing your product is costly, time consuming and complex. This is why it is necessary to design your product from the very beginning with manufacturing in mind.

For example, many people are surprised to learn that it is a lot easier to scale your electronics for mass manufacturing than it is to scale up production of your plastic enclosure. This is because the 3D printing technology you used to produce your enclosure prototype is completely different from the high-pressure injection molding technology used in production. It's very easy to design an enclosure that can be 3D printed but that could never be produced using injection molds. When this happens a total redesign of the enclosure may be required, which is obviously very undesirable.

The same can happen with the electronics. It's very possible to have a PCB design that may work when you test only one or two boards, but that starts to show problems at higher production volumes. For example, a 20 percent defective rate may not even present itself if you only test one or two boards. Any time you ramp up production (especially initially) you raise the likelihood of exposing new problems.

Another example is in regards to certifications. For instance, if you design a circuit that could never pass FCC requirements, then that would require a redesign before it could be manufactured and sold. These are all reasons why it's important to design your product for mass manufacturing from the beginning. That way you won't have to make any major design changes when you scale up to higher production volumes.

6. Conduct Rigorous Quality Control Before Shipping

Do you remember the Samsung's Galaxy Note 7 phones that spontaneously burst into flames? Users were injured, and the phone was even banned on commercial planes. Its hard to imagine worse publicity for a product! After this debacle, Samsung determined that the batteries in the device had "significant design flaws." One battery had "an electrode deflection" that caused overheating, and a second battery had "an abnormal weld spot" which caused an internal short circuit. It was estimated that Samsung lost \$5 billion from these design mistakes.

This shows the importance of quality control testing. Why weren't these mistakes caught during product testing? If you put all this effort and money into developing your product, don't ruin it by shipping defective products to retailers and customers. It's very difficult for a hardware startup to recover from shipping defective products, especially to their early customers.

Always err on the side of having too much quality control testing during the beginning stages of manufacturing. Don't sacrifice this even if it lowers your initial profits. It is inevitable that a small percentage of defects will make it past your product testing process. No production run is 100 percent perfect all of the time. Strive for an eventual defect rate of 1 percent or lower, and be sure to meticulously triple check any sample units going to important retailers or reviewers.

7. Don't Underestimate your Product Development

Product development always takes longer than you expect it to. Hardware development is very complex, expensive, and time consuming – so plan for it. When I worked at Texas Instruments, the development of our products always took longer than we originally anticipated. Being a large company didn't make it any easier to forecast development cost and time. Some of this has to do with the debugging process, which is unavoidable with electronic hardware products. You can't plan and budget for debugging problems that you don't yet know your product has. It is pretty impossible to develop a product that doesn't need to be tweaked in some way, so plan and budget for the debugging and prototype iteration process. Remind yourself that creating something brand new is never easy.

8. Avoid Feature Creep

Feature creep happens when you add too many features to your product. Although lots of features may sound appealing, fight the urge to add every conceivable feature to your product. I'm a big proponent of following the Minimum Viable Product (MVP) method, which has many benefits including gathering user feedback.

The MVP method entails developing the simplest possible version of your product. Only include the core features of your product. What you can do is estimate the production cost for any features you might want to add in the future. These costs, along with feedback from customers who bought your MVP, will help you decide whether or not to add more features.

The trap that so many hardware startups fall into is thinking they know what their potential customers really want. It's very likely you are overconfident in your product features, and most of your assumptions will eventually be proven wrong. It is so easy to think you understand what thousands or millions of people will buy but that is a very dangerous mindset. From my experience you are much better off minimizing the number of assumptions you make about what customers want, and instead focus on getting real sales data.

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