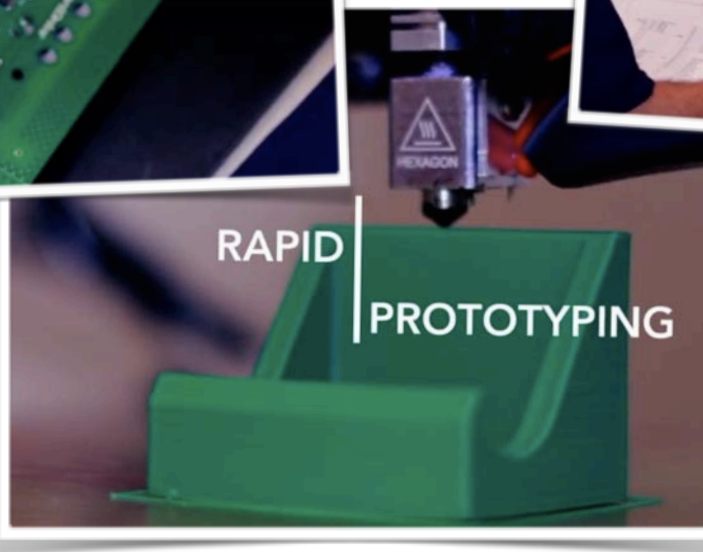
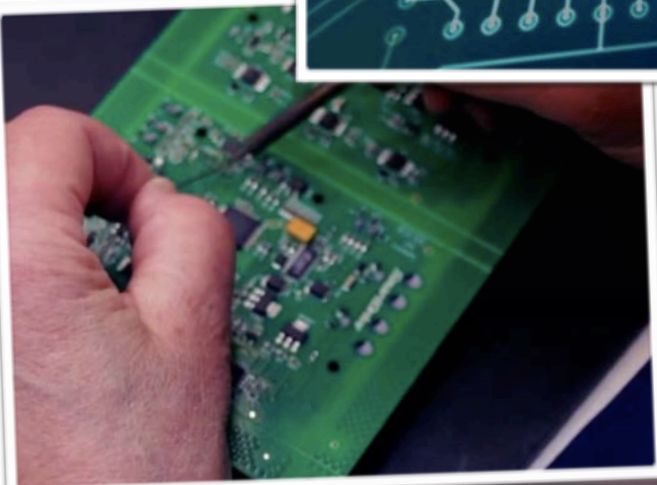
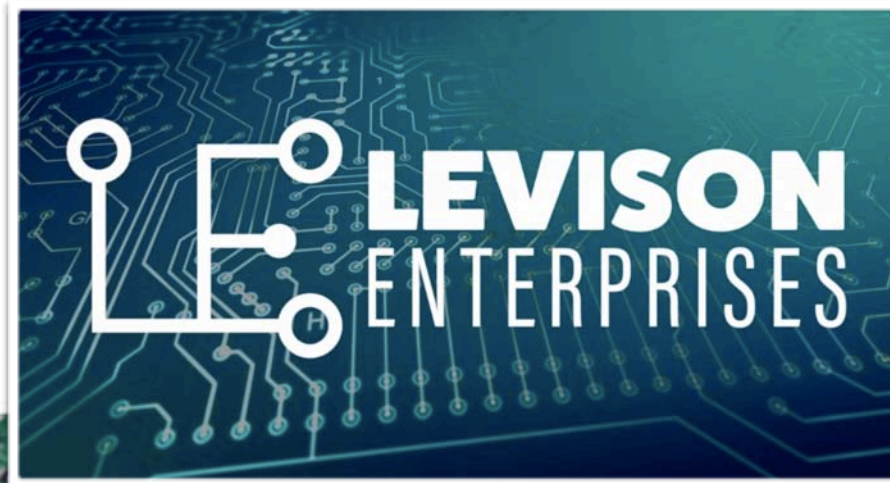


5 Steps to Developing a Product





"Everything that can be invented has been invented."

-

Charles H. Duell - Commissioner of US Patent Office (1899)

Introduction

History is often changed in the blink of an eye. Obscurity becomes infamy and the course of human events is altered forever by an inventor. Such lofty thoughts probably never occurred to two Ohio farm boys born shortly after the Civil War. From such humble beginnings came one of the inventions that would alter human history forever.

The story begins in Ohio and after years of working in obscurity with almost no financial support and more failures than either of the two brothers could count. On that fateful and historical day both brothers stood on a sandy hill in a remote part of the country. After one serious failure that almost ended in tragedy for the older brother they stood prepared to test their invention a second time.

The younger brother was about to take his turn. He settled behind the controls of his history-changing invention and pulled the release lever. The device rolled down a pre-set rail system while the older brother ran alongside helping to steady the device. The device reached the end of the rail and the retaining wire broke free...

At 10:35 A.M. on December 17th, 1903 Orville Wright became the first human to achieve controlled flight near Kitty Hawk North Carolina. The path of mankind was now altered forever. Inventors would follow these two trail blazers and take their invention to even greater heights with jet travel, breaking the sound barrier and eventually putting a man on the moon.

History is filled with many such stories. Will your story be the next one? Inventing devices that improve or change the course of history and improve life for the human condition is truly a noble pursuit. We want to help you write your story and make your vision a reality.

Please use this guide as a resource to help you on your journey to creating a successful invention that may one day alter history. In here you will find information and resources that will make your journey easier and hopefully more successful.

Step 1: Research

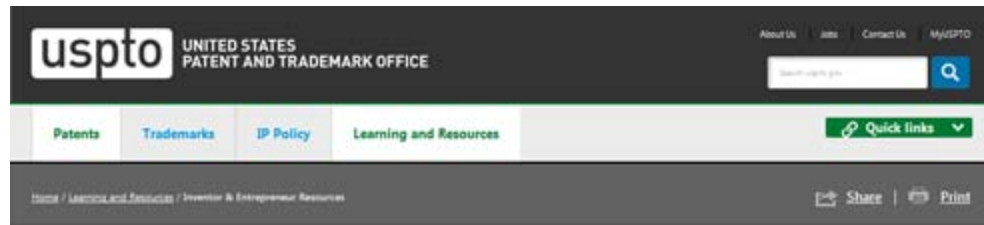
The research phase is one of the most critical phases for a new inventor. Not all inventions can be successfully created and even if it can be built there may not be a ready market for the invention. To avoid these tragic missteps a rigorous research and proof of concept phase should be completed. Here are some basic steps and questions that should be asked right at the beginning:

1. Basic Search











This may sound simplistic, but before you go very far with your invention it is advisable that you do a series of basic searches to see if anything else like your idea already exists or if there are other inventions that, while not exactly like what you are thinking, serve this market and therefore would make it difficult for your invention to come into the market and displace what is already there. There are a few places to begin a basic search:

- Google - Of course this sounds simple, but a basic Google search will bring all kinds of search results back. It may come in the form of a company web site that offers exactly what you are proposing or it could be a little more obscure such as a forum post where someone is discussing what you are proposing. Work through this process and check out what the searches bring back even if it feels like a dead end. It might link to items like forums, social media posts, blog posts, videos and web pages that will prove very enlightening. Don't short cut this step. It sounds simple, but will give you a huge lead if anything is currently available that might short circuit your success before you even get started.
- Patent Search - When you apply for a patent formally the search for an existing patent will be much more extensive than we are suggesting here. However, going to the U.S. Patent web site and simply doing some basic searches may bring back an existing and similar product (even if it is not commercially available) that already has a patent. You can get to the U.S. Patent Office at:

<https://www.uspto.gov/learning-and-resources/inventors-entrepreneurs-resources>



Inventor & Entrepreneur Resources

<p> Patents for Startups The patent process can be challenging if you are not familiar with it. Here is basic information on the patent process.</p> <ul style="list-style-type: none"> ➤ Patent Process Overview ➤ Inventors Assistance Center ➤ Patents FAQs ➤ Patents Homepage ➤ Search for Patents ➤ Official Gazette for Patents 	<p> Trademarks for Inventors & Entrepreneurs The trademark process can be confusing for a beginner, so the links below provide useful information on registering a trademark with the USPTO.</p> <ul style="list-style-type: none"> ➤ Trademark Basics ➤ Trademark Electronic Search System (TESS) ➤ Trademark Electronic Application System (TEAS) ➤ Trademark Status and Document Retrieval (TSDR) ➤ Electronic Trademark Assignment System (ETAS) ➤ Assignments on the Web (AOTW) ➤ Trademark Trial and Appeal Board (TTAB) ➤ Trademark Manual of Examining Procedure (TMEP) 	<p> Inventors & Entrepreneurs Assistance The Inventors Assistance Center (IAC) provides patent information and services to the public. The IAC is staffed by former supervisory patent examiners and experienced primary examiners who answer general questions concerning patent examining policy and procedure. The Trademark Assistance Center can answer general questions about the trademark process or provide guidance on the type of information to include on a form, but may not provide specific legal advice.</p> <ul style="list-style-type: none"> ➤ Inventors Assistance Center ➤ Patents Ombudsman Program ➤ BusinessUSA  ➤ Trademark Assistance Center ➤ University Outreach Program ➤ NYC Cornell Partnership 	<p> Education & Information Guides and additional resources and information for inventors.</p> <ul style="list-style-type: none"> ➤ Scam Prevention ➤ Provisional Application for Patent ➤ General Information Concerning Patents ➤ A Guide to Filing a Nonprovisional Utility Patent Application ➤ A Guide to Filing a Design Patent Application ➤ Basic Facts About Trademarks ➤ Financial Manager ➤ U.S. map of state resources ➤ IP Awareness Assessment
<p> Scam Prevention While the USPTO does not investigate complaints or participate in any legal proceedings against invention promoters/promotion firms, under the American Inventors Protection Act of 1998, the USPTO will provide a public forum for the publication of complaints concerning invention promoters/promotion firms.</p>	<p> Pro Se - Pro Bono Are you an inventor or small business who has limited resources and needs help applying for a patent on an invention? If so, you may be eligible to receive pro bono ("for free") attorney representation through the Nationwide Pro Bono Program.</p> <p>➤ Pro Se</p>	<p> Current Events Information about conferences and conventions.</p> <p>➤ Upcoming Events</p>	<p> Other Federal Resources Helpful resources for inventors and entrepreneurs from other federal agencies.</p> <p>➤ myRA: a retirement savings account from the U.S. Dept. of the Treasury </p>

You will find many great resources on this web site to help you on your journey, but one of the key items you are looking for at this point is the ability to do your own basic patent search to see if there is a patent that like yours already filed. Click the link to search for patents and see what you find. It may surprise you, but you will find it educational.

- Crowd Funding - Per [Wikipedia](https://en.wikipedia.org/wiki/Crowdfunding), crowdfunding is...

"Is the practice of funding a project or venture by raising monetary contributions from a large number of people. Crowdfunding is a form of crowdsourcing and of alternative finance. In 2015, it was estimated that worldwide over US\$34 billion was raised this way."

Since the inception of modern crowdfunding on the Internet people are funding everything from consumer loans, real estate projects, movies, music, numerous community art projects, and new inventions. Here are some of the more popular sites that provide crowdsourcing platforms:

- [Indiegogo](#)
- [Kickstarter](#)
- [GoFundMe](#)

Crowdfunding can be both a source of funds for your invention and as a platform for doing research. In this step, you are more interested in using it for research rather than raising funds. You are still early in the process to begin fundraising. Use the above platforms to do searches for inventions like yours. If you find similar projects as your own, you will get some valuable information such as:

- **Competition:** The existence of any inventions like yours that could be competition. Again, keep an open mind here. There may not be any inventions that are exactly like yours, but there may be items that serve the same need. You want to use the information found here to evaluate both the potential of infringing on others ideas/patents or evaluate if your invention will change the makeup of the market enough for you to make money from it.
- **Funding Levels:** If any inventions like yours were/are being funded and by how much. If you see some similar inventions or projects, again, even if they aren't identical the amount of funding received and/or the time it has taken to build that support can be very helpful. If you see similar projects, but little support or support that has taken a very long time to build up you should consider this a red flag. It doesn't mean yours won't be a success, but it does mean you need to see what these inventions don't offer that yours will and what potential mistakes they made in their campaign.
- **Supporters:** Number and type of supporters. While this can't be substituted for marketing research it can give you some insight into the type of supporters and investors you may be able to attract when you reach this step. It will help you figure out the size and scope of the market for the invention and help you figure out...
 - How many supporters do they have? (The more the better)
 - Do they have a few very large supporters, many small ones, or a combination of the two groups? Ideally you want to see a mix of both. The large supporters show interest from serious investors and small supporters show potential future customers and possible brand evangelists.
 - Background of some of the supporters to the degree you can see from the information that is supplied. Are the backers in

the industry, investors, etc. This will give you some insight as to potential future markets & investors.

- Amazon - www.amazon.com This research outlet may not be applicable to your situation, but it is still worth mentioning. Amazon has become more than a shopping outlet. It has also become a comprehensive search engine and marketing research outlet for products. When you have your invention or idea fleshed out try and think of products that are similar and then put those names into Amazon to see what comes up.

Presumably you are coming up with something that is entirely new and your idea will not come up, but what does come up may be items that are similar or things that serve the same need, i.e. good substitutes. It is worth your time to read through the reviews, FAQs, etc. of products that are similar. Try and look at these products analytically to see how they are the same and different from your idea. Try and figure out where they come up short and how you can offer something that fills in the space. By doing so you may learn what people do and don't like about those alternatives so you can incorporate them or make your product different to address what other people don't like or would like to see added.

If you can't find ANYTHING that is like your product; this also gives you information. Is there a ready market for your product? If there is not a single product even like what you want to create you must ask if there is a market for what you are proposing and if that market would in fact buy your product (see Step 4 below)? Competition is not a bad thing because it shows you that there is a ready market for something and people are paying money to get these things. If you find many similar items what you need to do is simply prove your invention and product are better and solves the problem better. The competition proves that there is financial incentive to figure out how to build a better mouse trap so to speak and come up with a superior product that can not only compete, but beat the choices available today.

2. Is it even possible to build what you have conceptualized?

Many times, a concept can't be carried to creation because technologies needed are not available or too expensive to obtain on the shoestring budget most inventors must work with. Other times the concept will require parts or equipment that don't exist. So, it is important to ask if the invention you are working on can even be developed into a prototype. You don't want to find out that you have an invention that requires very expensive subcomponents or high

priced processes that make it difficult to even build a prototype much less build in quantity and sell to the market.

3. Is there any other invention/product that is similar?

This is a tricky question to ask and answer successfully. Presumably you are inventing something because nothing else like it exists, but that is not always true. If something already exists that is similar, then ask the following subset of questions:

- a. How many inventions exist that are like mine?
- b. If yes, to "A" above then ask:
 - i. How is my invention different or the same?
 - ii. What does my invention do that the others don't?
 - iii. Are the things that make my invention different meaningful? In other words, will the market stop using one of the existing products and use mine because of the things that my invention will offer that the others don't?
 - iv. Is my device different enough that it can earn its own patent?
 - v. If there are other similar items available is there room in the market for my invention as well? If not, is my invention good enough to take a piece of the market from the existing products available?
- c. Can my invention be built and put on the market at a price that will be competitive with the existing or similar products?
- d. If you answer no to item "C" then ask if the market will pay the premium you will charge? Also, ask why, they would pay this premium? Do you offer a lot more than other products? Could those other products easily offer what you will offer? Will your niche market care about what you are offering that they do not?

The questions above are going to be hard to answer honestly, but are important to your future success. They are difficult to answer because inventors are often too close to their invention and can't answer the questions above objectively or honestly.

If there are similar products on the market you owe it to yourself to be honest

and ask if your invention is truly different enough to be superior to existing products. You also need to be aware that just because the invention is not currently on the market doesn't mean you are free to patent and create it. A similar item may still exist and have a patent on it, but not be currently built or marketed. In other words, it still exists as a protected patent in the U.S. Patent office.

Many inventions are drawn up and a patent is sought, but it never makes it to the market. If that is the case with your invention, ask yourself why this invention was never successfully brought to market? Was it too expensive? No market for the invention?

Understanding why a similar product is not being currently produced or why one that is being produced doesn't have features or benefits like yours are interesting exercises to go through and figure out why. At the very least it could save you from making a very costly mistake or give you some insights that will change the direction you were thinking of going.

Just being different is not enough. *You need to be different in items that matter to the market* and items they are willing to switch from their existing products to your invention to get. As the legendary Bill Gates once said in a speech...

"There are many products that could be created and have new features others don't have, but those things were not things people cared about. They were meaningless improvements."

Having an invention with features that nobody cares about and are unwilling to spend additional money to get or switch from their existing product choice to get doesn't help you introduce a successful product to the market. The founder of Apple Steve Jobs is quoted as saying...

"Think Differently"

We would add, yes, but think differently in a way that creates more value that people want and are willing to pay for.

Understanding the economics of the market, current products and your invention is also an important step. If you decide that your invention is truly an improvement on an existing product in features and benefits that are meaningful to the market, then knowing if you can build and market your product at a price point that will be competitive is the next logical question, which we cover in more detail in step four.

Many times inventors can create a product that is truly different and has features that are nice, but find that the cost to add them makes the product unviable. The market, while, interested in what you must offer simply aren't

willing to pay the premiums you must charge to get the features you have.

The concept you learned as a child of the difference between wants and needs is a good exercise to apply here. Are the features and benefits of your invention at the price you must charge "nice to have items" or "must have items". Items that are "must have" items are more likely to pull the necessary market to your product and possibly even support a higher price point.

4. How will it work or function?

The very best ideas are ideas that are simple and easy to communicate. Remember to create a marketable product that people will eventually buy you need to be able to communicate what you have, how it works, the problem it solves, and where someone can buy it?

It has been said that the best concepts and inventions can be summed up in a single sentence. If you need hundreds of pages of documentation to describe and spell out what your invention does and how it works you may have difficulty communicating that idea to investors and customers. If it is too complicated to be understood with a sentence or two, then investors will not put money into the project and customers will not buy because they don't understand what you are offering.

Here are some taglines and descriptions of services/products you might recognize. While not all of them are new inventions or products per se, all of them communicate a clean message that leaves no doubt what they are offering, its audience, its value, and how it works:

- BMW: "The Ultimate Driving Machine"
- Bounty: "The Quicker Picker Upper"
- Audi: "Advancement Through Technology"
- Dollar Shave Club: "Shave Time. Shave Money."

Your goal with your new invention is to find a way to communicate what value proposition it offers in a single sentence. If you can communicate what you are trying to do in a single sentence, maybe by doing this research, you will discover improvements or changes you can make to your invention that will help attract engineers, investors, and future customers.

When you are preparing your invention, you don't necessarily have to have a sharp and memorable tag line already created, but you should be able to communicate your idea in a simple sentence or two which does many of the same things. Your invention description should:

- Communicate why it is unique
- Be simple to understand, even to a layperson

- Demonstrate the value of the invention or why you would want it
- Illustrate the market for this potential invention.

What you want to avoid at all costs is needing to explain your invention in a 200-page white paper and needing a full hour to describe it or need an audience with Ph.Ds. in engineering or theoretical physics to understand. If people can't understand the value proposition of what you are offering, then you will have a tough time convincing people to get behind the project to help you bring it to market. Remember, investors need simple. They bring money not necessarily technical expertise.

Step 2: Technical Information

Ideally, you have a working prototype of your invention that completely demonstrates the value proposition and shows how it will work from a technical standpoint. Having a working prototype will not only demonstrate working functionality, but will allow you to see possible improvements and make securing a patent that much easier. However, many inventors are working on shoestring budgets and don't have the financial resources, supplies, or equipment to build the prototype.

The next best course of action is detailed drawings and descriptions that spell out all the key pieces of information you will need to build a working prototype. This includes blueprints, key measurements, supply lists, etc. Here are some items to make sure you have written out or documented as part of your process:

- Blueprints or CAD Drawings
- Parts Lists or Ingredient Lists
- Measurements of Physical Product
- If Electronics - Power Measurements/Calculations
- Maintenance projections, needs, and costs
- Pricing information for components and assembly (if possible)
- Descriptions of how it works and for whom
- If you have a working prototype - a video of it working would be helpful
- Documentation of any environmental impacts caused by or connected to use of your product
- Documentation of any social acceptance issues, positive or negative

Having the items above when you approach a manufacturer about production or attorneys about filing patents or investors will help you show off the invention as it was meant to be seen and help you build interest very quickly in addition to helping you get production set up quickly.

Step 3: Drawings

While more than one business idea and invention has probably come to started its journey from the sketch on the back of a napkin in a diner it isn't recommended you start yours this way. The better your initial drawings and plans are the quicker you can uncover issues, interest supporters, find manufacturing facilities, and/or bring on potential help with other inventors, engineers, scientists, etc.

There are several individuals and companies that provide hand drawn plans and specs, but some of the more popular software available for this purpose include:

- CAD - Computer Aided Design: One of the most well-known and used drawing programs on the market is CAD. Per their [web site](#):

"CAD, or computer-aided design and drafting (CADD), is the use of computer technology for design and design documentation. CAD software replaces manual drafting with an automated process.

If you work in the architecture, MEP, or structural engineering fields, you've probably used 2D or 3D CAD programs. These programs can help you explore design ideas, visualize concepts through photorealistic renderings, and simulate how a design will perform in the real world. AutoCAD software was the first CAD program, and it is still the most widely used CAD application."

- MATLAB - Used by many scientists and engineers around the globe to work out complex solutions to problems. Per their [web site](#):

"Millions of engineers and scientists worldwide use MATLAB® to analyze and design the systems and products transforming our world. MATLAB is in automobile active safety systems, interplanetary spacecraft, health monitoring devices, smart power grids, and LTE cellular networks. It is used for machine learning, signal processing, image processing, computer vision, communications, computational finance, control design, robotics, and much more."

- CATIA - Used by leading organizations and multiple industries to develop projects used every day. Per their [web site](#):

"CATIA delivers the unique ability not only to model any product, but to do so in the context of its real-life behavior: design in the age of experience. Systems architects, engineers, designers and all contributors can define, imagine and shape the connected world."

- ZW3D - This is an integrated module in CAD used for product development. Per their [web site](#):

"ZW3D, an integrated CAD/CAM solution designed for the complete product development process, features the fastest kernel for Solid-surface Hybrid Modeling, non-solid mold parting and smart CNC Machining tactics from 2 axis to 5 axis. It brings customers endless benefits such as reduced costs, optimized design workflow and improved efficiency."

- MechDesigner - A solution that allows you create models with many moving parts. Per their [web site](#):

"Use MechDesigner CAD Software to design complex mechanisms, cams and motions. Use MechDesigner to design machines so that they move smoothly and precisely. With MechDesigner, it is easy to design any number of mechanisms and cams in one model, then analyze, scrutinize and optimize all of them together, so that you can get the best machine performance. You can review and analyze all kinematic and kinetostatic (force) data. When the machine is running as you want, you can export the cam data for cam manufacture."

In addition to the software cited above there are many more available. Please check out this [web site](#) for a more complete listing of software that is available. If you are an inventor of products that require electronics design or circuit board design you can use the following solutions:

- Altium - Used to create next generation electronics. Per their [web site](#):

"Altium software empowers makers, engineers, and designers of electronics-based products to create a smarter, safer, and more connected world."

- PADS - Used to produce electronic product designs. Per their [web site](#):

"PADS AMS Design Suite - Produce electronic product designs faster and easier while ensuring design intent, performance, and reliability in a complete design capture solution and virtual prototyping environment."

Detailed drawings that show measurements and how pieces fit together is a real game changer in moving your invention from idea to reality. While not an absolute necessity in the early stages it must eventually be completed to move into both the patent and manufacturing steps. If you have already done all the initial research and know your invention is unique and likely to get a patent, then having detailed drawings will allow you to move that much faster into production. In addition, having detailed drawings allow you to begin the costing phase of your project because it will allow you to get exact quotes for production.

In addition, detailed drawings will put you on better footing when seeking investors. Being able to demonstrate to potential investors that your invention has been researched and has detailed drawings and project files ready to go shows that you are serious and have put considerable resources into the project to date. It shows a level of sophistication to your project that many investors never see before being asked for money. It simply elevates you and your project to a different level and makes future success that much easier.

Step 4: Market & Pricing

“Ideas are easy. It's the execution of ideas that really separates the sheep from the goats.”

— Sue Grafton

The ability to take an invention from just an idea to a successful product is where the rubber meets the road as the saying goes. If you have completed all the steps above, then you have made some fantastic progress of taking your idea to the world.

Having an idea is great, but having an idea that you can create and that people will buy is how great fortunes are made. That only happens when you move your focus from the invention itself to the business aspects of success, i.e. you need to find a market to sell your product to at a price that allows you to produce your product and make a profit. This isn't as easy as it sounds. It requires some business skills and the ability to find the right manufacturer or partner that can help you produce the product. Here are some basic considerations you need to figure out to see if there is a market for your product.

- Potential Market: Understanding everything you can about the group that will buy and use your product is critical to its overall success in the market. You can't sell to everyone as much as you would like to. Instead you need to find a small segment of the overall market that have a problem you can solve with your invention. There are several steps to putting all the pieces together regarding your target market:
 - o Niche: The first step is clearly defining who is your target market. Don't make the mistake of defining your market too broadly or missing the mark by saying “anyone who can buy my product” as the target market. Further, defining your target market based on how modern TV advertisers do it probably isn't helpful either. Modern advertisers like to define markets with basic demographics, i.e. single men, ages 24-40, with incomes 35-55K per year and live in the Midwest. This type of definition is both broad and doesn't tell you anything about the group, what they like, how to communicate with them or what problem(s) they are having that you might be able to solve with your product.

A much better niche as an example would be single men between the ages of 24-35 that work in the information technology field and have an interest in flying drones as a hobby. This group should hold at least a 4-year degree

and have an income above 50K per year. In addition, this group should be active in social media spaces such as Facebook, Instagram and Twitter. You can see by this definition we have included some of the items from the first demographic profile that might have an impact, but we also included items that describe likes, dislikes, where we might find them to communicate our message (social media).

Not all niches need to be defined this much, for example, your niche market could be anyone that works in the real estate industry including Realtors, mortgage brokers and appraisers. The key thing you want to make sure you include are items that describe are their likes and dislikes to the best degree possible. Even more importantly you want to know what problem this niche has that your product will be able to solve. See the *section below on pain*. By doing this you can more easily find the right messages to put in front of them to motivate them to act.

This can be an extremely detailed area of study outside the scope of this guide. Therefore, here are a list of very well written books that will take you much farther down the road of defining both a niche market, but also how to communicate effectively with them:

- Niche and Grow Rich - By Jennifer Basye Sander & Peter Sander
 - Buyer Personas - By Adele Revella
 - Inbound Marketing - By Brian Halligan & Dharmesh Shah
 - Duct Tape Marketing - By John Jantsch
- Psychographics: This is a deeper step into your niche and the mind of your prospective customer. Per Wikipedia psychographics is the study of personality, values, opinions, attitudes, interests, and lifestyles. If you understand your niche market at the psychographic level, you understand what makes him or her motivated to take certain actions. You have a deep understanding of what types of things interest them, motivate them and ultimately how to communicate with them in a way that will get them to take action.

This information is not as hard to obtain as you might think. Sure, market researchers can spend millions of dollars gathering the detailed profiles that make up a niche market, but you don't need that level of preciseness. Here are some outlets for learning more about your niche and the problem(s) they have that you may be able to solve with your product:

- Interviews - Simply invite some people that fit your target niche to lunch or coffee and ask them questions that help gather this information. If possible, have them review your invention and ask

for their input on what they think. Simply reach out to them and explain that you are doing a research project and would like to interview them as part of the project. Many will refuse, but some will agree and you don't need a ton to start to get valid results. You can start to get some useful information by interviewing as few as five. The more people you interview and ask the same set of questions the better your results will be, but a small number can still give you very useful information.

- Social Media - Use social media outlets like Twitter or Facebook to find people that fall into your niche market and see what they are talking about. Ideally you find out what groups [Facebook Groups] they may participate in online and simply join up and listen. By simply hanging around these people in social media spaces you will learn a lot about what they think, how they make decisions, problems they have, likes/dislikes, etc. It is simply amazing what people share online and how easy it is to tap into that information.
- Online Forums - Forums have been around even longer than some of the social media channels people mentioned above. While they aren't quite as heavily used, or frequented now that new places like Facebook Groups and Google Hangouts have come on the scene they do still exist and can be easily joined. They are typically divided into many subgroups and topics and by simply going through and finding interesting and active subgroups and simply reading and occasionally posting you can learn a lot about your target market.

Warning: If you are going to show them your invention and ask for input you should be very careful that you don't start "selling" them the invention. You don't want to influence their thoughts about it because you might start to skew the information you get back. Rather, just present it to them in a neutral format and then sit back and observe or listen to what they say.

You must resist the temptation to "defend" your invention if they criticize it or "show them how it works" if they don't use it the way you intended. Simply observing or listening without interfering in any way will give you very valuable information that will help you improve and eventually market your invention. The issue is that many inventors let their ego get in the way and feel they need to instruct the person in why it is great or how to use it, both of which create artificial results and feedback. You want honest feedback

that will help you build a better product.

- Pain Point: There is an old adage in sales to sell to the pain. The idea is that people buy something to fill a need or solve a problem. If the “pain” of that problem they need to solve is not that high they generally aren’t motivated enough to purchase a solution. This level of pain also determines how much they are willing to pay to get a solution. If the “pain” isn’t that high they probably won’t be willing to pay that much to solve the issue. If there is no pain then they are unlikely to even be motivated to purchase something to fix it.

“Pain” is simply a way of expressing something that bothers the person enough to be willing to pay for a product or service that fixes it or makes it go away. The need to keep track of money as a business facilitated the invention of accounting software. The need (or pain) of not being able to see behind your car when backing up facilitated the invention of a backup camera. The need (or pain) of being able to carry around hundreds of books at a time when traveling facilitated the invention of the Kindle eReader that can hold hundreds or thousands of books on it. The problem (pain) existed and the inventor came that created a product to solve the problem. Unfortunately, too many inventors have solutions looking for a problem to solve instead of the other way around.

As an inventor you want to understand what the “pain” is that your niche market is experiencing and if your invention will solve this pain. If your niche doesn’t have a pain that your invention can solve then you might not have enough motivation from them to eventually buy your product. What you want to do is find a problem that your niche experiences and then invent a product that will fix that problem (pain) at a price point where you can manufacture it, make a profit, and solve their problem (pain) at a price they are willing to buy it for.

Using some of the outlets mentioned above, i.e. online forums, interviews and social media will give you a chance to ask members of your niche market what problems (as it relates to your product) that they are having and what do they (not you) think would be helpful in solving that problem. Again, be careful here, you don’t want to shove your product in their face and start selling. This is your opportunity to simply ask and listen. Don’t forget you are GATHERING information, NOT selling something.

Just remember, no pain, no sale. You want to understand what problem (pain) your product solves before you can declare that you have a winning product that will solve it and people will buy.

- Price Point: Having a great invention that people want and solves a “pain” they are experiencing is a great step in bringing your product to life. However, if you find that niche market is only willing to spend \$25 dollars on average to fix this “pain” and your product can’t be produced and sold for anything less than \$50 you have a significant problem.

To find out what your niche market is willing to pay simply ask them. Going back to the idea of sitting down with some members of your target market and talking to them you include questions about their pain, level of pain, and how much they might be willing to pay to make it go away. Let’s assume a worst-case scenario that there is little pain or at least not enough to motivate them to pay what you need to produce this product.

It is possible that your niche market you have defined simply doesn’t have enough of a problem that they are willing to spend money or an amount of money necessary to support your invention in the space. If that happens you may need to evaluate your invention or the niche market you have chosen. It is possible another niche market is a better fit for what you are proposing. History is littered with examples of inventions designed for one thing that get used by a different group for a different reason than it was created for. This is a happy accident, but certainly possible.

If you still believe you have chosen the correct market and that there is real pain there to support the price point you can offer your product then not to fear, you aren’t done yet. You have a several possible routes you can take. You could use education to build up the level of perceived pain that someone has. This isn’t the easiest or most cost effective direction to go, but it can be done. The other route to go is find a more cost effective way to produce your product. A good business consultant, books, and research can help you navigate the issue until you find a way to match the price you can sell for to the price your niche is willing to pay. It may simply be a matter of education and communication or it may involve more extensive strategy in production, design or sourcing.

- Size: If you have validated your product through the steps above you are almost there. One big, but important criteria to figure out, is the size of your market. Once you have a clear picture of who your niche market is, how they think, what their pain points are and how much they are willing to spend to solve that problem you need to figure out if this niche is big enough to support your product. You may do all the steps above and find there are only a few hundred people that make up this space. You may find the market you have defined will only buy a certain number of products and then stop, leaving you without future growth potential. You want to make sure that the niche market you have defined is large enough to buy and

sustain your product far into the future. What do you do if you find yourself with a niche that is too small? There are a few things you can look at:

- Defined Too Narrowly - In your effort to carefully define your niche market did you define them so tightly that you made them too small? Unfortunately finding a niche market is part art and part science. You need to define them well enough to sell to them, but not so tightly you end up with a group too small to support your product. You need a balance of the two. If you find your market is too small, look to see if some of the criteria you used could be loosened up to expand the size of the market. Again, be careful you don't loosen it up too much. For example, if you defined your market as Realtors for example and only Realtors ask yourself if there are other people in the same industry that could also benefit from your invention and then carefully research and if needed expand out to that market.
- Combine Markets - Are there other niche markets that could benefit? These may be related or not, but can you add more than one niche together to create a larger market to sell to? If so, you may need to research them separately and you may need to position your product and messaging differently to them, but find that you have more than one niche market you can combine to increase sales volume.
- Create a "Gillette" Business Model - The razor company Gillette is famous for their marketing prowess when it comes to razors. They figured out a way to sell you a razor for an extremely cheap price, but then make millions of dollars in sales by selling you replacement blades for your razor forever! Ask yourself, if you have a small niche market and you are going to create an invention, does your potential invention have add on items that you can go back and sell to this market in the future? Items that will expand its capabilities or items that are required to continue to make it work? Marketers call this the "backend" because it comes after the initial sale. Ideally, you create an invention that has a very lucrative backend by having additional items you can sell to this same market that adds to, replaces, or expands functionality of your initial invention.

Marketing is a vast and complicated field of study and can involve specialists from many fields. The idea here is not to create a dissertation on marketing, but give you enough tools to finish fleshing out your invention as it relates to your potential market. If you follow the guidelines in the above section it will help you identify your market, possibly refine your product for the market and help you establish a price point that will show if further development is feasible.

Step 5: Legal

This is the final step in our guide and in many ways, not the most critical step you need to take. That sounds counter intuitive because anyone who creates a new invention has a fear that someone will come along and steal their plans and rush to the market before them and make the fortune that should have been theirs.

We don't want to discount that fear completely because it is certainly possible and there are historical examples where this has happened to prospective inventors. However, rushing to the legal step too early may cost you money that you don't need to spend, at least not yet.

We have laid out this guide with legal coming as step five because some of the earlier steps are more important to finalize your invention and consider feasibility BEFORE you rush to a patent process and the money that is involved in obtaining a patent. Also, completing all the steps above will refine your invention, obtain solid drawings and other important steps you will need to complete to file a successful patent as well as determining if you should file a patent. As we discussed in step one where you are conducting research, if there are other inventions like yours on the market already you have to determine if there is room in the market for your idea and if it is new or different enough to successfully compete and obtain a patent.

Once you have completed most of the steps above and are sure you have a solid idea begin with a simple NDA, short for Non-Disclosure Agreement. These agreements can be obtained from an attorney and will help you when you need to discuss your invention with consultants, investors and potential business partners without fear that you will lose control of your invention.

At a minimum a proper NDA simply means that any party you discuss your invention with can't disclose what they have learned to another person or company. However, you can also have clauses added that will not allow the person(s) you shared your information with from competing with you or using any of the information they learn to profit from your ideas. While not as strong as a patent they are considerably more cost effective and easier to put in place quickly.

Once you have an NDA that is drafted and ready to go you simply have any party you wish to discuss your invention with sign the NDA. Again, while not as strong as a patent you will find that a properly drafted and executed NDA has a lot of protective power. We advise you to speak with a qualified attorney about this topic and work with them to get the proper document drafted and ready to go.

When you are ready to file a patent, we recommend you find a qualified attorney that specializes in patent, trademark and copyright law. This is an extremely technical area of law and requires an attorney that is an expert with this part of the law. In other words, we don't

recommend you go through the phone book or call the attorney that did your will. Because this is such a specialized area of law you want an expert.

Keep in mind that this is such a specialized area of law that you have specializations within a specialization, meaning you have patent attorneys that only work in certain areas of patent law, automotive, electronics, or software for example. You will want to find an attorney that not only specializes in patent law, but also is familiar with the industry and products that your invention will fit into. We recommend going to a trusted site like <https://www.martindale.com/> to begin your search. You can do searches for attorneys in certain areas, geography and see their ratings and reviews.

You could also check with other inventors in online forums and see which attorneys and law firms other people are using and recommending for certain types of inventions and patents. We can't over emphasize that when you finally reach this stage to get the best legal representation possible.

Summary

The process of creating and inventing something totally new that benefits your fellow man and has the potential to make you wealthy and possibly famous is truly exciting. In this short guide, we have outlined some great information in a five-step process:

Step 1: Research - Do a proper amount of research on your potential invention and the market it will fit into. This step is very important to long term success and should not be skipped or rushed. This step will help you build a solid foundation that will insure you truly have not only a unique product, but one that can successfully be built, marketed and sold for a profit. It will also help you to refine your invention to better serve your market and help you make it truly successful from the beginning.

Step 2: Technical - This step will make sure that you have thought through many of the questions it will take to successfully build your invention, attract investors and meet the needs of your future customers. Answering the questions in this step will help you further refine your concepts and ideas.

Step 3: Drawings - This can be an extremely technical step and one you are tempted to short change and simply sketch your invention out on a piece of paper or worse a napkin, but don't. Technical drawings show how all the components fit and demonstrate an invention and idea that is more mature than a sketch on a piece of paper and is more ready for the market. Serious investors, manufactures and potential partners will all want to see these drawings to see exactly how it works, but also to show you are serious. In addition, you will want these drawings for step five when you get ready to file a patent.

Step 4: Marketing & Pricing - This step will help you answer the fundamental questions that show the invention is more than an interesting idea, but actually has market potential and can make money if created and sold. This step will be what every serious investor wants to see. It will show investors that you don't just have a good idea, but you have a good idea that will make money in the market for you and your potential investors. It also helps you refine your product to better match your market. While you may believe that you have thought of everything the research in this step may help you further refine your idea to make it even better and more valuable.

Step 5: Legal - Again, while this is the step everyone wants to rush to when they conceive an idea for an invention this can be a mistake. Clearly you need to protect your invention, but completing steps 1-4 insure that you have a solid invention that can and should be protected. In addition, using an NDA can be a very cost effective way to protect your initial ideas without the higher cost of getting a patent, which can be both expensive and time consuming. When you reach, this step seek out a qualified attorney that specializes in patent law for inventions in your industry. Don't try to do this step alone or cut it short as it could have serious repercussions on your future ability to protect your invention.

Conclusion

The information in this guide is designed to guide you along on your journey in the exciting world of creating new inventions. When necessary please seek qualified individuals to assist you in your process both through the steps outlined here, but also in choosing people to help you bring your invention to life.

If we can be of assistance to you at Levinson please don't hesitate to reach out to us. In addition, we recommend that you check our web site on a regular basis as we will be releasing new guides and materials that will help you in every phase of your inventing career from design to marketing, finding investors, building a successful pitch deck, and obtaining a patent. We will be publishing that material on our site and offering it in guides like this. We wish you the best of luck in your new career!