



You've got an amazing idea for a product and want to start its development journey. But where do you start?

My partner Michael is a **Product Design Engineering** Consultant who has worked with many clients. Over the years I've observed the design process and how he works with his clients. It's my intention to share this process from my perspective of someone who has been exposed to his world but has no formal education as a Product Designer – much like many of the budding inventors out there.

I appreciate it can be a scary proposition fully committing to developing your idea, regardless of if you are an individual or a larger company. Thinking big picture can be very daunting. However, with the right advice, guidelines and broken down into small steps, it's not so bad and you'll be there before you know it, – *think Ross helping Chandler to the altar in Friends!*



Stage One – Research

Google your product idea and **image search** for existing products. Google is your new best friend! Search specifically for your idea and variations – realistically there is a good chance your product isn't unique, but it doesn't need to be, you just need a good USP (unique selling point).

You want to make sure your **idea is a good one** so ensure you're confident in your USP. To get a more rounded view of your product you might research if people are searching a specific solution for something in the same field as your product. Also think about where you might sell your product and who your competition may be.

Be willing to talk about your idea. Ensure you trust who you're talking to, as it's important to gauge people's opinion on your idea. Whether they are friends, family, colleagues – speak to people who will give you honest and critical feedback. This will help confirm the direction of your product.

Think cautiously about protecting your idea at this early stage. The danger is that it could be detrimental and premature as the design is still in its infancy. What you might protect now, may be a very different product by the time it has been developed. You don't want to spend your money prematurely! However, there are 2 things you can do. 1. Keep a design journal (with dates) to establish ownership rights if the design is ever contested. 2. Do a free, **Google patent search** of other products in the same field to ensure you won't infringe on any patents yourself.

At this early stage you should start to ask yourself certain **questions**.

- What is the product?
- What do I want to get out of it?
- How much time do I have to develop the idea?
- How much will this project cost?
- Do I have the funds to cover the project?
- Who is the product targeted at?
- What will the sale price be?
- How many do I need to sell?

Don't stress about it, you can keep things vague at this point, just be mindful of the questions you'll eventually need to answer. As you're doing all this research, you'll naturally find the answer to a lot of the questions and refine the design brief.



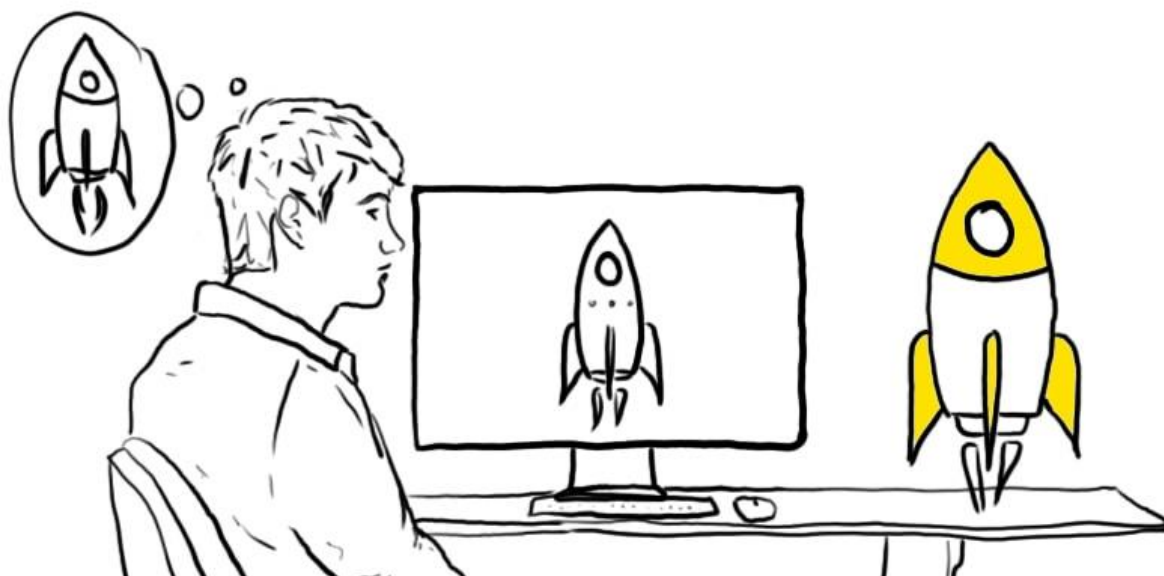
Stage Two – Support

It would be lovely to think we can all bring products to market on our own, the reality is you'll likely need support – and that's a good thing!

The first thing I would suggest is to make a **connection** with a business advisor. Your advisor will be able to advise on available support, route to market or simply point you in the right direction. Through this support it's possible to access various amounts of money from funding bodies, though they may demand a lot of your time, they can also provide you with free courses which may be of use to your business. In Scotland free support is available through **Business Gateway**, **Scottish Enterprise** and the **Prince's Trust**, provided you meet their criteria.

It's important to be thinking about all aspects of your business in parallel with the design process. As the design process reaches an end, you'll want to put marketing, websites, social media etc into action, so it's important to have a strategic business plan in place from early on, even if it's just to manage finances.

In terms of developing your product, do as much as you can on your own first. If you think you can mock-up a prototype with your kids Meccano, or sketch your idea, do that. Work like this until you feel out of your comfort zone, then it's time to speak to a **Product Design Consultancy**.



Stage Three – Design Development

A Design Consultancy's role is to turn your concept into a functional, desirable and manufacturable product. A design consultancy is equipped to work from the barest notion of an idea, to a highly developed idea. They are able to provide a tailored service to specifically what you need and have the skills to take your idea as far as you require. Tailor a consultancy to your specific requirements, for example you may want to approach a consultancy that specialises in your product field (medical, consumer, life sciences etc). Don't be afraid to have a **conversation** with them to see where they can help, prior to committing. Any good consultancy will be happy to sign an NDA (non-disclosure agreement) for peace of mind.

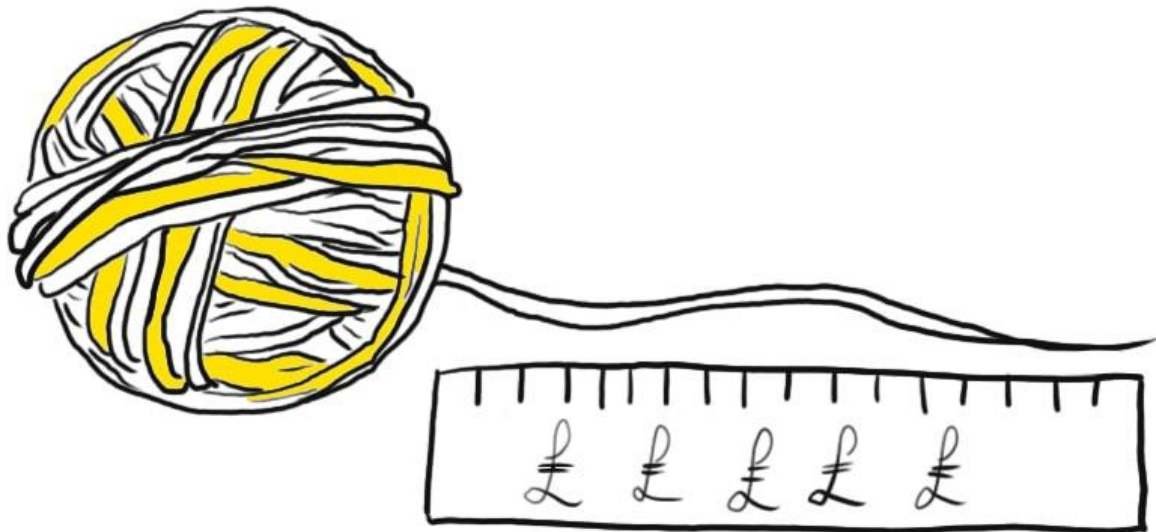
You may be asking yourself, **What should I do before I meet with a Design Consultancy?**

Each project a consultancy deals with is unique, so naturally they will require different things from clients. First and foremost, know the direction of your product. You need to have a clear direction in order to convey to your designer what sort of outcome you want from the project. From here, the designer can then ensure the project goes down the correct path.

Make sure you've done Stage One – Research, this will shortcut the process at the start, saving you money.

Funding, you need to know what your budget is and how you intend to fund the project. It's best to engage in an honest conversation with your consultancy at the start of the project to discuss this. The brief can be tweaked to suit your budget. But, remember – you get what you pay for and design is the most important factor to your products success!

Lastly, keep an open mind. If your consultancy thinks they know a better way of doing something, you want to be open minded to it. It will often result in better and more cost-effective design.



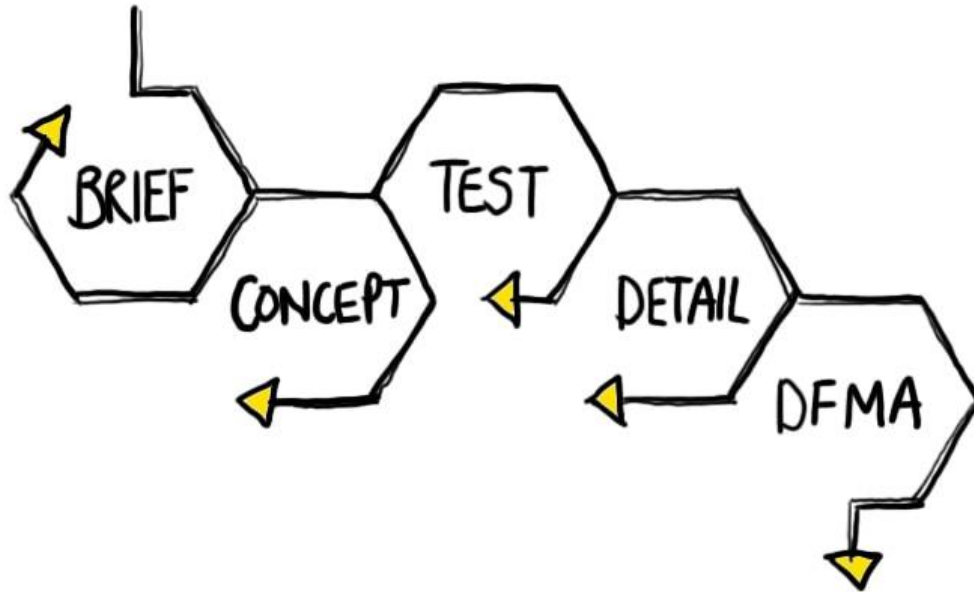
How long will the design process take and how much will it cost?

It's impossible to know how long the process will take as this is completely dependent on the complexity of the project. Best way to answer that question is to have a conversation with your designer.

The cost is impossible to predict without knowing the specifics of the product. Design is an expensive process as much of the fees go towards prototyping, development and software. Have an honest conversation with your design consultancy, they should be open and honest with you as it's in everyone's best interest. Don't let the cost put you off, there is so much funding available to get you through.

What is the Design Process?

It's easy to hand over your idea and have someone else develop it. However, I would stress you should know as much about your product as possible, therefore it would be useful to understand the **approach** your design consultancy will take.



I'd highly recommend you check out our '[Approach](#)' page, dedicated to explaining the design process in detail.

Stage Four – Market and Manufacture

You've got a solid design, what do you do next? You'll need to have your design **manufactured**. Manufacturing is typically the final phase of working with your consultancy. A design consultancy can help you with this as they will have connections within the industry. Alternatively, you can engage with a manufacturer and manage this process yourself. Both are valid routes depending upon your experience. A word of caution, however, be wary of making changes based on the manufacturers advice if you are not certain of the consequences. There have been many good designs that have been ruined by a manufacturer who does not understand the necessity of a design feature and chooses to simplify or reduce tolerances.

Different manufacturers will have different machinery and levels of skill, for this reason what one **manufacturer** deems impossible, another will fulfil without problem. It is therefore reasonable to expect changes once you engage a manufacturer and it is best to engage the manufacturer as early in the process as possible. If you're manufacturing abroad and your product is complex or has multiple components, you may want to consider using two manufactures to manufacture separate elements. This reduces the chances of your design being copied!

With regards to patenting your design, Patents can be costly and not actually offer much protection. Speak to your designer about this, they'll offer an impartial opinion to allow you to weigh up the pros and cons. Think about how much your product will yield, is a patent worth it? Your designer won't be able to provide legal advice but will understand how unique the design is and what the most protect-able elements are. You will also need to consider if investors might insist on a patent.

Once the design has been produced, you need to look at getting your product to market, creating an online presence, networking and trade shows. Don't leave your marketing until too late. The web can be slow to recognise your existence, you want to look established and reputable when you hit that 'GO' button.

Perhaps you need to think about employing staff and how you intend to fund this next stage. Remember, **there is always support available, you're never on your own! Good luck.**

