

From concept to market, the art of invention and product development (Part five)

By: Jack Durban, inventor and product developer 2008

In part four of this series we covered the filing of a Provisional or non-provisional patent and what you can do to protect yourself when having to disclose your idea to others before and after the filing of a patent.

Now we address prototyping, design refinement and the right type of help to get you through the rest of the product development process.

Proof of Concept or the all essential prototype

If you are technically competent in the field which your invention resides then you may not need much third party support here. There are however a few tricks of the trade that can save you a lot of time and money in the prototyping phase.

Focus on the basics first.

Identify and list the core features of the product in order of significance.

From the features list, segregate knowns from unknowns. In other words identify new and novel aspects of the design that lack technical support or research from academia, white papers, Prior Art, industry, etc.

More specifically what are the "do or die" design challenges that will make or break the entire design? Focusing on the mundane while shying away from the more challenging aspects of the design only postpones the pain and failing to disclose such challenges can ruin relationships with investors.

Conquer the biggest challenges first.

Critical core feature testing, validation, and refinement. To adequately test and validate your design concept you must identify and replicate all

functionality as well as the intended operational environment. This includes temperature, humidity, line voltage variation, user applied abuse, power cycling, immunity to R.F., and so on. To compile a list of required tests related to a particular product go to any of the regulatory compliance sites. The failure to identify and remedy failures very early in the design process will be much more costly than finding them later like a demonstration in front of a potential buyer!

Once the product's critical design challenges are addressed you can now move onto secondary and tertiary design aspects like packaging, human engineering, etc. I realize that this order of priority might upset some in the industrial design world but we have all purchased at one time or another that really cool, futuristic looking, design award winning product that didn't function nearly as well as it looked. Or regarding functions, there's the tendency to substitute traditional norms in language and symbology with hieroglyphics that only an Extra Terrestrial can decipher. Remember...Function first and window dressing second!

Finding help

Finding the right help in getting your invention or product idea off the ground quickly is critical if you are going to get to market or land a licensing deal. There are a few ways to get the help you need.

You can contact your local community college or university and inquire about teachers, professors, or curriculum that provides low cost, even gratis technical help to individuals or the local business community.

The potential downside to any such program would be time availability and ability to deliver on time due to other commitments.

This concludes part five of "From concept to market, the art of invention and product development"

Part six addresses what to expect from a product development firm.

[Vorelco Product Development Services](#)