

# Intellectual Property

- 1) Intellectual Property commonly referred to as IP, is basically everything a person or company owns or has built that they have full rights to. IP includes any patents, copyright material, or trademarks one might have. Intellectual property can be anything from a product you designed, code you wrote, an idea you came up with and patented, a drawing, schematic, notes, etc. Basically anything you came up with that can be used to design a product and make money is intellectual property.
- 2)
  - **Copyrights:** When a person has copyright protection of their work, they have exclusive rights to modify, distribute, display, and copy the work. This can be anything from a power point presentation, a document, code, notes, drawings, schematics, and even art work.
  - **Patents:** A patent is a basically a deed saying that you exclusively own an invention or design. This is a legal document that can be used to guarantee no one else can use your design for their own products, without getting permission from you first.
  - **Trademarks:** A trademark is a design that distinguishes your product or service from your competitors. Basically something that represents your company and distinguishes your company from the rest.
  - **Trade Secrets:** A trade secret is a formula, process, device, or other information that companies or individuals keep secret to give them an advantage over their competitors.
- 3)
  - **Utility Patents:** Utility patents are given for the invention of a new physical product, and it prevents others from being able to use or sell your product for a period of time. This is the main type of patent.
  - **Design Patents:** Design patents are given for developing some new design whether it be some piece of code, schematic, or process that you came up with originally.
  - **Plant Patents:** This doesn't really apply to our fields, but a plant patent is issued for developing some sort of new plant or organism.
  - **Reissue Patents:** These are given to correct an error in an already issued utility or design patent.
- 4) In order for a patent to be granted the invention must be **new**, **useful**, and **non-obvious**. This means that you obviously can't file for creating something that has already been created and patented. The invention must be useful, which basically means don't waste time filing for a patent for something that no one cares about. The invention must be non-obvious meaning you can't take something that has been done, make one tiny change and then file for a new patent. You must have a significant improvement or method that is not trivial.
- 5) Filing for international patents is complicated and expensive, because a patent must be filed in each country in which the patent is sought. Patent laws vary

from country to country so this requires redrafting and you have to pay for these patents individually which is very expensive.

6)

- **Title:** Label for the Invention
- **List of Inventors:** All of the inventors that contributed to the patent design. Failing to recognize a contributor can void the patent.
- **Field of the Invention:** Explain what field of work the invention relates to.
- **Background of the Invention:** Explain the problem that your invention solves, and give context of the problem including why a new solution is necessary.
- **Summary of the Invention:** This section explains the invention, and is basically the concrete evidence for the background of the invention.
- **Brief Description of the Drawings:** Give descriptions for any drawing you give in your write up.
- **Detailed Description of the Invention:** This is the detailed and very technical portion of the application that explains exactly what your invention is and how it works. This is most likely the bulk of the application.

7) Patent Claims are what describe the invention and what makes it unique. This is written in legal language, and the claims provide an outline for what should be written in the description. These are the basis for all offensive patent rights, and need to be carefully written.

8) Once you define something in your claim you refer to that object as “said object”. Claims follow a hierarchy with independent claims being the top level followed by dependent claims. Independent Claims do not rely on anything else, and dependent claims add further restrictions to independent claims. Dependent claims inherit all of the written independent claim. Always try to make your claims as general as possible. Avoid absolute definitions by saying things like “approximately”. Try to write claims that would infringe on your claim and ones that wouldn’t to identify potential bugs or loop holes.

9)

- **Provisional Patent Application:** This is a cheap and easy way to file a patent, and once filed the product can be labeled “patent pending”. This gives the filer one year to pursue a regular patent, and more time to investigate before investing in a regular patent application.
- **Regular Patent Application:** This is an actual patent application, and cost about \$500 plus legal fees.
- **Patent Cooperation Treaty Application:** This allows the filer to file a single patent application in a single country, but basically states that you are planning to file for the patent in other countries.
- **Defer Application Indefinitely:** A way to basically delay your patent application for a year. So you can basically claim something as your own without actually filing for a patent for one year.

10)

- 1) Formulate a strategy and plan
- 2) Study prior inventions
- 3) Outline Claims
- 4) Write the description of the invention
- 5) Refine claims
- 6) Pursue Application
- 7) Reflect on the results and the process