

PRODUCT SET-UP & COMPLETION SUMMARY

1. *Introduction and Statement of Purpose*

The product that I have created is a patent application for a shoe for charging mobile devices. I conducted a consultation interview with the inventor to discuss and understand all aspects of his invention. Once the elements were clear between the inventor and me, I then moved forward to the patent application. The application consists of three components: claims, written description, and illustrations. The patent claims are used to protect the unique aspects of the invention. There are two different components proposed in the claims: the independent claims and the dependent claims. The written description is an in-depth analysis of the structures outlined in the illustrations. The illustrations are included to help provide a visual representation of the invention. The three illustrations proposed in the patent application cover the shoe, the sole/placement of piezoelectrics, and the structure of the electrodes. In simple terms, the invention uses pressure/tension generated by footsteps to power piezoelectrics placed in the sole of the shoe. I have successfully created the patent application with the help of my mentor. My final product consists of the technical field, background, summary of the disclosure, claims, a detailed description, illustrations, and abstract. The energy generated by the piezoelectric electrodes is used to power the lithium-ion battery which can charge a mobile device through a port located at the side of the sole. This product will serve as a foundation for further learning and applications as I plan to continue pursuing a career in the law field.

2. *Review of Skills and Research*

Many research topics will be critical in the exploration process of the product. The prior art is defined as information in a document that is publicly available and information made publicly available through doing an act. Furthermore, there is no time limit on the prior art, and therefore a document published 10 years ago is just as relevant as one that was published 30 years ago. The court has added three judicial exceptions to what is patentable: natural phenomena, laws of nature, and abstract ideas. Through this search, I will have to cover multiple patent-eligibility guidelines. Novelty can be defined as the quality of being new, original, and in some cases unusual. In order to qualify for a patent in the U.S., an invention must be novel. The non-obvious subject matter can be defined as your invention should not be obvious to someone relatively in the same industry. Preemption plays a big role in patent-eligibility.

I learned how to use patent databases such as the Unified Patents Portal, Google Patents, USPTO's Public Pair. There are many ways to create illustrations, but my mentor taught me to use my artistic skills to sketch out the diagrams. I used critical thinking skills to understand the protectable features of the technology presented by the inventor. I created three diagrams that covered the shoe, the placement of the technology, and the structure. The claims took a lot of writing skills that I had to learn because I had to say a lot in a short amount of words. The written description was the complete opposite in which I learned how to minutely detail. This was especially difficult as I have been taught to only say what is needed. I had to adapt my way to a way that was very unfamiliar and odd at first. The goal is to provide enough detail that a person with ordinary skill in the area of the invention would understand how to recreate it. This requirement means that the description must be comprehensive and precise, leaving no ambiguity in any way. I am glad to say that I was able to accomplish that.

I used a multitude of skills throughout the creation of the application including time-management skills, critical thinking, strong writing skills, adaptation, etc.

3. Methodology

I began my project by having a meeting with the inventor about how his shoe functions. In this meeting, I gained a clear picture of the invention in order to start working on the protectable features of the invention. After determining the protectable features of the technology, I then started writing the claims on Microsoft Word and submitted the details to my mentor. Next, I created hand-drawings of the figures which explained the inventive concepts of the invention through illustrations. After the figures were approved by my mentor, I Wrote out a detailed description of the invention which includes a step by step process for anyone in the industry to recreate his product. Finally, I proofread and edited the application.

4. Materials

1. Microsoft Word
2. Google Patents
3. IP Watchdog
4. WIPO Patent Drafting Manual

5. Utilization of Higher Level Thinking Skills

This project required many high level thinking skills. I used synthesis throughout the development of my application because I had to make sure all of my documents came together. The illustrations are based off of the protectable

features claimed and the written description is based off of the illustrations. In order to successfully create the patent, I had to use my synthesis skills to perfectly arrange the documents together in a cohesive manner. Continuing on, I had to frequently analyze the illustrations during the creation of my written description as I had to go into a lot of details. I talked about each component labeled in the illustrations and analyzed how the components worked together to perform on function. Finally, I had to evaluate carefully the design of each illustration. The labels on each illustration had to match up with the next one. I had to make sure all my piezoelectrics were connected and the right place.

6. Conclusions

The outcome of this product is a completed patent application which includes drawing/diagrams, a detailed description, and the claims. It is important to note that this will not be a legal patent as I am not able to practice patent law in the United States legally. This product will have an application to the real world as it will be formatted as a real patent application and help boost my knowledge on the step by step procedures into created patent applications. The project has been a tremendous learning experience for me as I have learned the fundamentals for writing a patent application, which is a skill that will be important in my future career endeavors. I have gained an incredible amount of knowledge on the creation of a patent alongside advancing my prior learning with the patent-eligibility subject matter. The product is useful to me because it has helped me set the foundation on drafting a patent application and will be utilized by me through the development of the skills I acquired through the process. This product is not directed to impact others, however, it has helped me in teaching others about the importance of Intellectual Property and its principles.