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IPFRONTIERS

3D printing could change your IP strategy

Advances in technology have made it possible to print anything from human tissue and prosthetics to toys and figurines and even weapons at home in just a few hours using three dimensional printing.

3D printing is also known as additive manufacturing, rapid prototyping or direct digital manufacturing. The process of creating three-dimensional objects involves designing or obtaining a digital blueprint using a computer-aided design software and then uploading that digital blueprint to a 3D printer.

Next, the 3D printer generates the uploaded object by an additive process that involves printing, layer by layer, stacks of material onto a base according to the two dimensional slices that comprise the digital blueprint of the object. The layers of material being deposited may be in a powder, liquid or filament form that is applied and fused together to ultimately form the object depicted in the digital blueprint.

With the use of a 3D printer, copying small items has now become much easier. Therefore, it may be more important than ever for small businesses to obtain intellectual property protection for their products.

Before 3D printing, a small business may have decided not to seek intellectual property protection for its products. The decision not to seek intellectual property protection by many small businesses was based on a determination that the businesses sales volume was too low for a third party to go to the expense of creating molds, tooling or other parts necessary to copy their products.

However, now that it is possible for others to take a 3D scan of a product and then print copies of that product with a 3D printer, it is time for all businesses to reconsider their intellectual property protection strategies. Some of the intellectual property protections that business should consider are discussed below.

Design patents

Design patents protect the way an object or article looks and have a term of 14 years from grant. In addition, design patents are generally less expensive than utility patents and tend to be

examined by the patent office in approximately one year. To infringe a design patent, the allegedly infringing object must appear to be the same or substantially the same to an ordinary observer as the patented design. If infringement is found, then the owner of the design patent may recover the infringer's total profits from selling the infringing design.

Therefore, businesses that sell products with a unique or ornamental look should consider whether filing a design patent would be beneficial in protecting against infringement by 3D printers. When design patents are filed, it is important to work with the designers to craft the design patent application so that it not only covers the current product but also to cover alterations which the designer would consider if trying to design around the patented product.

Businesses with products that are regularly updated and changed slightly should also consider filing continuation design applications after the first design patent issues to ensure the ability to seek protection for any design changes that are made that are outside the scope of the issued design patent.

Copyright protection

Copyright protection immediately comes into existence for original works of authorship as soon as they are fixed in a tangible medium of expression. A tangible medium may be, for example, paper, computer, sound recording, video recording or the physical item. Works that are protected by copyright include writings, drawings, computer code, blueprints, sculptures, architectural works and other creative works.

Infringement occurs when a copyrighted work is reproduced, made into a derivative work, distributed, or imported. If a work is registered with the U.S. Copyright Office, then a copyright owner may seek actual damages or statutory damages, which may be increased for any copyrighted work that is willfully infringed.

Thus, businesses may be able to obtain protection for any aspects of their products which may be covered by copyright pro-



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tection. For example, digital blueprints for 3D printing, computer code, sculptures, figurines or ornaments may all be protectable by copyright.

One strategy a company may consider is to seek a copyright registration for digital blueprints of their products which would be necessary to 3D print the product. With a copyright registration to the digital blueprints, the copyright owner would have an additional weapon to combat any digital blueprints for their products that may be uploaded to 3D printer filing sharing or open source websites.

Utility patents

Utility patents protect new and useful processes, machines, articles of manufacture, and compositions of matter and improvements thereof, i.e., the way that an object or article functions. The current term for utility patents is 20 years from the earliest effective U.S. filing date. In addition, utility patents may take several years to be examined by the U.S. Patent Office. To infringe a utility patent one must make, use, sell or offer to sell the patented invention.

As the popularity of 3D printing continues to grow, new claim drafting strategies for utility patent applications should be considered to provide additional avenues for stopping 3D printer users from copying patented products.

Some of the claim drafting strategies that are starting to be seen include claims directed to methods of manufacturing the product in a layer by layer fashion, computer methods for distributing instructions to make a product by 3D printing, computer methods for making a product by 3D printing and products made by 3D printing components. By including claims directed to methods and products formed using 3D printing, the patent owner will be able to more effectively prevent others from 3D printing and selling infringing products.

Trade dress

Trade dress protects both the packaging or "dressing" of a product and the design of a product, when the packaging or design signifies the source of the product to the buying con-

sumers. In order for the packaging or design of a product to obtain trade dress protection, the packaging or design must be inherently distinctive or have developed secondary meaning (i.e., been used in the marketplace for at least 5 years) that assists the consumer in identifying the source of the product. Trade dress infringement requires proof of confusion or mistake to the consumer as to who produced the product or may deceive the consumer as to the origin of the goods or services that are associated with the trade dress.

Therefore, if a product has such a look that signifies to consumers the source of that product, then a business may want to obtain trade dress protection. Even though trade dress protection may not be the best avenue to prevent infringement, trade dress protection does provide a business with an added layer of intellectual property protection which may be used with patent and copyright protection to stop infringement.

Trade secrets

Trade secrets may also be used to protect a business's own innovative processes and techniques, such as, proprietary know-how, which are used to make their own 3D printed products. Trade secrets protection varies from state to state but generally, protection is offered to certain items (i.e., formulas, client lists, manufacturing processes, compilation of strategic business information) that if kept secret increases the competitive advantage and value to the business.

Conclusion

As 3D printing continues to evolve and become more affordable, it is becoming clear that full scale production use will be available in the near future. Thus, it is important for businesses and intellectual property owners to be prepared to protect and enforce their ownership rights when eventually faced with their products being 3D printed by others.

This article was written for informational functional purposes only and should not be interpreted as legal advice. Jacquelyn A. Graff is an associate attorney with the law firm of Heslin Rothenberg Farley & Mesiti PC. She can be reached via email at jag@hrfmlaw.com, or at (518) 452-5600.