

3D Printing Kitchen and Sanitary Applications

Case Study



With the changes of the times, the real estate industry has experienced a period of vigorous development, and the market for commercial housing is increasingly demanding household standards, and the most complex technology, the implementation of the most difficult two spaces is the kitchen and toilet. As the carrying space of kitchen and toilet products, the product design of kitchen and toilet directly affects the change of household structure.

As an innovative technology, 3D printing technology has been widely used in many industries, and has also made new breakthroughs in kitchen and sanitary industry. The emergence of 3D printing faucet, 3D printing toilet, 3D printing flower sprinkler, cabinet and other products marks that the first enterprises to use this technology will lead the product market, break the bottleneck of R&D and production time, catalyze product iteration cycle, and accelerate the speed of new product listing. The courage to seek innovation in the process of change is bound to determine the future competitiveness and sustainable development of enterprises.

3D printing can restore creative ideas at any level, and new designs can be turned into physical objects in just a few hours. The main application of 3D printing in kitchen and sanitary field is to develop new products and verify their appearance to assemble and test. Now some brand manufacturers in kitchen and sanitary industry begin to introduce 3D printing technology for product development and small batch production. At present, the industry brand customers using Uniontech 3D printing technology are: TOTO, Seagull, Sacon and so on.

What does 3D printing technology bring to bathroom industry?

There is a big difference between 3D printing products and traditional kitchen and sanitary products. The biggest advantage of 3D printing technology is that it simplifies the traditional production process, does not need mechanical processing or any mould, only needs to input the three-dimensional data into the 3D printing equipment to produce parts of any shape, thus greatly shortening the development cycle of products. In order to improve productivity and reduce production costs. At the same time, 3D printing technology can print out some shapes that traditional production technology can not produce, making the product more unique, beautiful, and the product details more delicate and graceful.

Water tap

In July 2015, American Standard, the world's leading kitchen and bathroom hardware brand, displayed a series of metal 3D printing faucets with amazing novelty and magnificence. This group of works was popular at that time. 3D printing technology enabled the designer of American standard to show his imagination, and made the faucets concise and changeable in shape, with futuristic style. Looking up suddenly, the water flow seemed to be injected from another space. If we use traditional casting technology, we can't make such a tap anyway.



Closestool

A couple of years ago in Chongqing, a father and son used 3D printing technology to print a stacked wall toilet, which won two patents of national appearance and utility model. The toilet is printed with a light-cured 3D printer and is made of photosensitive resin. The characteristics of the UV-curable 3D printer are high accuracy and good surface finish. The toilet is made of light-cured 3D printing and weighs about 20 kg. It saves 60% water compared with the ordinary toilet. At the same time, it confirms a well-known network saying: master in the folk, netizens have also expressed, want to reflect the feeling of sitting on it?

3D printing can make the design of the product more humanized, and the comfort of the product, whether in appearance or in use, has been greatly improved.



Shower

Engineers at Water Pik Sanitary Appliances have been using 3D printing technology and rapid prototyping to develop shower nozzles for the past 20 years. With rapid prototyping, R&D engineers can quickly turn a computer-designed 3D model into a physical prototype for testing, which they say is ten times faster than using traditional methods. Although sometimes the entire printing process may take hours to two days to complete, after completion, the tester can combine various components to test the flow of water, spraying patterns and other factors to obtain the "most comfortable shower experience".



Individualized Creativity

Zooheads, Brooklyn's startup, customized animal sprinklers with 3D printing technology, has gained enthusiastic popularity among netizens. It is understood that from receipt of 3D printing orders for animal heads, the company will start working on printing, the process can be completed in about eight hours, and then after color and appearance processing, Zooheads promised that 3D printing bathroom animal sprinkler accessories will be shipped within two days at the latest.

3D printing technology can make the product fine-tune repeatedly in the design process, so as to get better results. With the rapid prototyping of 3D printing, R&D engineers can quickly convert computer-designed three-dimensional model data into physical objects for testing, a process ten times faster than using traditional production methods. In the future, with the function of 3D printing materials becoming stronger and stronger, personalized and customized 3D printing products in sanitary ware industry will also be a very representative application direction. Various products with creative design embellish the space to meet the aesthetic needs of different spatial levels.

In the new retail era, more attention should be paid to consumers' experience. 3D printing technology makes products easy to realize creativity, individualization and customization, which will be widely used and rapidly promote the pace of development of its industry. Although it is at the initial stage, I believe that the future will be a brand new world.

About UnionTech: Established in 2000, UnionTech shows nearly 20 years of proven leadership of globally-sourced SLA 3D Printing Systems and is now the market leader of SL equipment in Asia. We have broadened our market reach to support a quickly growing customer base in North America, Europe, and Russia. Our long-time approved CE-certified SL technology with reliable technical support and maintenance options is widely established in multiple industries like mold making & tooling, automotive, footwear, arts, dental & medical, education & research, etc. We also strengthen our leadership as an Additive Manufacturing (AM) equipment and solutions supplier by actively focusing on the evolution of new photopolymer AM technologies. Nearly 30% of our growing professional team is dedicated to research and product development. All of these benefits are supported by our global affiliation with other marketplace leaders. By living our core values day-by-day, we dedicate ourselves to developing innovative technologies and efficient models which evoke the potential of 3D-Printing, to serve the needs of our customers and pave our way to global success, under adherence of a continuous pursuit towards perfection.