

### **3D PRINTER IN FASHION DESIGN**

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At the moment, 3D printer is widely used as in science as in art. In the future, scientists intend to print living organs for transplantation, using the patient's cells. They will not die waiting for organs, and their immune system will not reject donor organs. Also researches are going to use live printed hepatic tissue in testing new drugs for toxicity. They believe that this method will provide more accurate results than traditional animal tests. And many laboratories already use printing fabrics for testing, new more advanced materials. [1] The last area that we should mention is design including architecture, interior design, fashion design. A small settlement in Shanghai region, where all building were printed by huge 3D printer, which was almost 7 meters high, and in 32 meters length. Day by day the device becomes popular in fashion, and the first person who materialized this idea was young Israeli designer Danit Peleg, then designer Iris van Herpen, during his fifth show of the haute couture collection in Paris, teamed up with architect Rem Koolhaas, to create an astounding printed on the 3D printer shoe. Shoes, inspired by banyan trees, were so difficult to perceive and pretentious, that everything looked as if the boots were growing from the legs of the models.[2] Also Adidas is going to launch a massive sale of a new model of sneakers Futurecraft 4D. And the main feature of these sneakers is that their sole is printed on a 3D printer.[3]

The popularity of 3D printers has been greatly increasing in the past few years. And some reasons becoming popular of 3D printer, that we can enumerate: 1) To implement any idea into reality by drawing it in a special simulation program; 2) To create a volumetric object, many machines with different presses, forms are not required, it is enough to have one 3D device; 3) The printer is easy to use: you need to understand it only in a special design program; 4) Creating models from several colors; 5) Economy of production: three-dimensional modeling is almost non-waste, so we can save on the material. Unlike other production methods, even with the final

processing of a 3D object, material costs are minimal. The future is not far off, when everyone can print clothes, shoes and accessories at home. Scientists will improve 3D printing to a new level. They develop a printer by means of that you can create individualized garments. An online trading platform should be formed, where designers will sell ideas, clothing sketches, as well as special materials for its manufacture. It means that in each apartment there will be a equipment on which the clothes will be printed for the specific parameters of the figure. That is, creating things will become as simple and commonplace as printing documents. Unfortunately, the development is at the initial stage. Despite the fact, that the clothes printed on the 3D printer impressed many people, such outfits have shortcomings. Firstly, the dresses could not boast of the mobility that ordinary fabrics have. Secondly, the outfits needed assembly. Jesse Louis-Rosenberg and Jessica Rosencrantz decided to change this. They began to develop a special method of three-dimensional printing, which used a single piece of plastic. The first outfit, which was presented to the public, was called "Kinetic dress" - made of nylon plastic, absolutely non-toxic material. . In the mid-price segment of the market there is a popular system Cubify which has a price \$1,299, that allows us to print small items. More expensive models of home printers can cost about \$4,000. But, like any other popular new technology, soon there will be absolutely affordable options: the Kickstarter Buccaneer project with worth of \$347 reached its financing line on June 29th. [4]

Thus, fashion can be accessible for everyone, because clothes made by this equipment have high quality and lower price.

#### REFERENCES

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