

iDesk

Japanese police use 3D printing to help find wanted criminals

The sarin attack on the Tokyo subway on March 20, 1995 was an act of domestic terrorism perpetrated by members of Aum Shinrikyo

In five coordinated attacks, the perpetrators released sarin on several lines of the Tokyo subway, killing thirteen people, severely injuring fifty and causing temporary vision problems for nearly a thousand others

Last June, after 17 years on the run, the last wanted member of Aum Shinrikyo, Katsuya Takahashi was arrested at a manga cafe in downtown Tokyo. In an interview with ANN news Japan last week, Tokyo Metropolitan Police Department revealed that during the investigation they created a 3D face model from Takahashi's photo with help of 3D printing. The 3D model was then published through ANN.

The intention was to collect new information with this realistic 3D printed model, but shortly after that, Takahashi was arrested.

The police department was introduced to 3D printers about three years ago, and 3D printers were mainly used to reproduce the 3D models of crime scene and weapon. This was the first time 3D printer was used to make 3D face model. In the future, the Metropolitan Police will also use 3D printed models as materials for jury trial.

In this latest issue of inSite, Mr. Sivaramakrishnan, Vice president, Technical & Development of JK Tyres has shared his views on the advantages of 3D Printing Technology in Tyre Industry.

Happy Reading!

(Source: www.3ders.org dated August 19, 2013.)

iNews - Recent Projects



Sare Homes (Meadowville Project)

iKix was awarded this project to make 3D prints of both External view as well as the interior stackable model. Each Meadow villa consists of 2BHK and 3BHK expandable villas and provides the option of expanding a room on the terrace.

The project was well executed by the iKix team and all the senior Management members of the client were extremely happy with the result.



IVRCL Chennai Metro Water Hogenakkal Project

The Hyderabad based IVRCL Infrastructures and Projects Ltd awarded the contract to iKix to reproduce the 3D Print of the Chennai Metro Water Desalination Plant which is being implemented by the Tamil Nadu Government under the Hogenakkal Water supply and Fluorosis mitigation Project.

The whole project which was well executed by iKix team with lots of determination.



Brigade Symphony

Brigade Symphony is a layout model designed and printed in a magnificent manner with explicit replication of the parent project. The design of the building is classic with a touch of modernity. There are large patios adjoining the living and dining areas.

iKix delivered the miniature before the launch in short span of time that was largely appreciated.



3D printing technology takes us one step closer to reality before the investment and tools are made.

Mr. Sivaramakrishnan
Vice President - Technical & Development
JK Tyres

Trends, technology and challenges in Tyre Industry

India is part of the global tyre market and with the global competition, the Indian tyre majors have to think differently to launch new products and bring in new designs to sustain the leadership position. The challenge becomes multi-fold because in the tyre industry the appealing design features come in the way of performance attributes of the product. Designer has to make a best fit creating an optimized design with best appeal and superior performance feature. With the global market, customers' demands are also always increasing. Every company is working to improve the appeal that suits different cars and vehicles, meet the expectation of high performance products and better resistance.

These challenges can be addressed only with the help of better technology. JK Tyres is a technology-savvy company and 3D printing is balancing the visual appeal and performance.

3D prints to meet the emerging trends

Indian tyre industry is going through rapid changes and all the global players are setting up manufacturing facilities in India. JK Tyres too has set up a state-of-the-art radial tyre manufacturing facility in Chennai, which is completely automated with robotic manufacturing process to be on par with the best in the world. We have started using 3D printing technology for the new designs as we believe it is an excellent tool. It is a great technology for a designer to visualize a product and make very quick design decisions. 3D prints recently produced by iKix has helped our design team immensely to accelerate the design cycle time and bring a newer product to the market at a very quick speed.

3D printing technology takes us one step closer to reality before the investment and tools are made. Earlier, without these tools one had to depend on 3D models generated in the computer monitor for firming up the design decisions. It is actually a 3D on 2D. We don't get the feel of how the design actually looks or feel of the third dimension. But 3D proto-type prints immensely benefit and enable the designer to make those quick and meaningful design decisions when it comes to optimizing the aesthetics as well as meeting the performance requirements of the product.



Conventional Vs 3D Prints

In the past, we used the conventional method of hand-carving the pattern on rubber surfaces. One can imagine how much time it takes and how skillful a guy has to be to bring the perfection in carving the intricate pattern or designs on the rubber pieces. We then moved on to creating the pattern on full plain rubber tyre with a template using a specialized tool for carving. And now JK Tyres ventured into high end technology in terms of 3D modeling rapid prototype.



Currently we produce proto-types using 3D prints. It is fast, very efficient and compliments the designer. In about a day's time, the designer has the print in front of him, which helps him to make measurement, see from all angles, look at the aesthetic appeal of the tyre and study the manufacturability of the trye. These immensely help us to make meaningful design decisions at the fastest possible time. It's actually a revolution to optimize the designs.

About iKix and their working style

The experience with iKix and its team has been great. The response and turn-around time has been superb. Our team is highly satisfied with tailor-made solutions offered by iKix. In fact, though we are located at Faridabad, about 2000 km away, we are seamlessly integrated and never felt the distance. Our designers were able to send email and get instant feedback from print station from Chennai. In many instances, the proto-type prints were delivered in 24 hours, which is really amazing. It feels as if iKix team is sitting next door.

We are extremely happy with the way the business partnership is blossoming and would like to look forward to strengthening this in the coming years.