



Thinkable Studio Reveals Design Transformation with Stratasys J55 Full-Color 3D Printer

Office-friendly J55 reduces lead times for the creation of ultra-realistic models from two weeks to one day, with cost savings of up to 75%

Last year, Stratasys launched a first-of-its-kind full-color 3D printer for the office – the J55™. The 3D printer has been a hit with design studios across the globe, including German product design agency Thinkable Studio, which today reveals the transformative impact the technology is having on its design process.

Based in the southwest of Germany, Thinkable Studio develops new products for international businesses in the consumer goods, industrial technology, and medical markets. At the heart of the agency is founder Jörg Schlieffers, who boasts over 25 years' product design knowledge and experience using 3D printing. For Schlieffers, the use of full CMF (color, material finishing) capabilities via the J55 3D printer is enabling the agency to produce prototypes with unrivalled realism.



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Jörg Schlieffers

Founder, Thinkable Studio



Integration of KeyShot 10 3D rendering software allows effortless integration of CMF information for digital files

“We were sold on the J55 immediately,” explains Schlieffers. “Having had experience with single-material 3D printing technologies, I knew this was the technology we needed to take our product design process to the next level. We are now able to introduce CMF models much earlier in the design process compared to traditional methods and produce ultra-realistic prototypes that are pretty much identical to the final product. Customers have been blown away by the accuracy of the models we can create, so this technology has become an absolute necessity for us during concept modelling and design verification.”

The J55 features a unique rotational printing method that combines high-resolution 3D printing with an excellent footprint-to-tray ratio for an office environment. Thinkable Studio is able to produce

prototypes comprising five different materials in nearly 500,000 colors with PANTONE® matching options in one single print. These benefits were exemplified in a recent project comprising a very complicated design for a bicycle helmet with integrated AR technology. The design concept accommodates the most complex AR technology within the bicycle helmet and see-through visor, and incorporates indicator lights and striking design textures. Using the J55 and VeroClear™ material, the team was able to 3D print a lifelike transparent visor with integrated LED lighting. According to Schlieffers, without this 3D printing capability they would have never been able to match a 3D model to look like the intended design render.



Model of a bicycle helmet, including complex AR technology within the see-through visor, as well as indicator lights and striking design textures – 3D printed by Thinkable Studio on the J55

Streamlining the design workflow

In addition to ultra-realistic 3D printed models, the J55 has also streamlined Thinkable Studio's design workflow, delivering much-welcomed efficiencies in design modelling processes. The integration of KeyShot® 10 3D rendering software with the J55 allows Thinkable Studio to easily embed CMF information into the digital file — which is communicated to the 3D printer.

“The results we achieve with KeyShot are fantastic,” continues Schlieffers. “It enables us to select textures for our designs, and generally speed up our design process significantly. In terms of software, it is comparatively better than anything that I have tried before.”

By bringing model making in-house, Thinkable Studio has also seen significant reductions in costs and time — both for the agency and its clients.

“Our normal process would have been to send our data to a model maker in North America or Asia, which meant obvious time and cost implications,” explains Schlieffers. “In addition, this process obliges us to reluctantly share confidential product design files with external suppliers.

“With the J55, we have slashed the time it takes to create ultra-realistic models from two weeks to just one or two days and reduced our costs by up to 75%,” he continues. “These are exceptional savings that make a huge difference to the performance of our business and the speed with which we can meet client needs. And since everything is undertaken in-house — from design to 3D printing — we're now crucially able to ensure our clients confidentiality is upheld.”



Model of a chair designed by Thinkable Studio in the GrabCAD Print Software, shown on the J55's unique rotational printing platform



Thinkable Studio's bicycle helmet design in the agency's KeyShot 10 3D rendering software



Scale models of a chair, accurately replicating wood and leather textures, designed by Thinkable Studio

Looking ahead, Thinkable Studio aims to utilize the J55 to offer services to new industry sectors, such as furniture. This recently saw the team design and 3D print a scale model of a chair that accurately replicated the different wood and leather textures of the final design. The team is also increasingly supporting the needs of clients within the healthcare sector, leveraging the 3D printer to optimize form and function of new medical products prior to clinical trials.

Stratasys Vice President Zehavit Reisin, who leads the company's materials and design segment in

Europe and Asia, said, "Thinkable Studio has been a shining light for the use of full-color, multi-material 3D printing within product design, improving the prototyping process to produce better products for its customers. Our J55 platform offers all these capabilities in a compact, office-friendly platform for the first time, demonstrated by the strong uptake we have had from design studios globally since launch. Through both hardware and software developments, we remained laser-focused on delivering our customers continued efficiencies across the product design workflow."

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