

THE LEAPFROG PRINTERS

Bolt

The leapfrog Bolt is the most popular printer for architects. This printer is equipped with a large touch screen and advanced software, which greatly increase the usability, even for less experienced users. Relatively large models fit on the large print bed of 32x33cm.

Dual separated heads provide for a superior dual printing experience which also give the possibility to print complex models by using different colours in one model. This can increase the look and insight a model can provide for the designer and client.



Xcel

The Leapfrog Xcel has one of the biggest build volumes available on the commercial 3D printing market. This machine can print an object up to 2.3 meters height and has a print bed of 54x52cm. Model this size will blow clients away and can really give a clear view of your designs. If you are interested in seeing a print this size, contact sales@lpfrg.com to order one, or make an appointment

CONTACT

For more information about the use of Leapfrog 3D Printers contact the clients from these cases. They would be happy to further inform you about their experiences of their 3D printer.

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Fokkema & partners, Pieterjan Corten: corten@fokkema-partners.nl
KCAP, Vincent Hector: v.hector@kcap.eu

For information about the 3D printer's specifications and costs, visit our website at www.lpfrg.com or contact us at sales@lpfrg.com. T: + 31 (0) 172 503 624



Leapfrog™
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Business Case

ARCHITECTS



Leapfrog™



INTRODUCTION:

3D CAD software has been a tool for designing in architecture for many years. Presenting these designs in a professional manner is important to communicate your ideas to the customer. Involving the stakeholders in the process of the design as early as possible until the final design, will prevent unnecessary iterations and reduces risks. Understanding a 3D model on a computer screen isn't an intuitive way to experience this model. 3D printing can provide a tangible solution in presenting a 3D model which can be understood by everybody.

The following cases will be about three different architects and how they experience and how they involve 3D Printing in their daily work; Peterjan Corten from Interior- and Architects Bureau Fokkema & Partners, Vincent Hector from Architects bureau KCAP en John Heimensem, an entrepreneur in model building.

FOKKEMA & PARTNERS

"Fokkema & Partners is an interior- and Architects bureau. This means that we design complete renovations and new real-estate projects, as well as objects which are meant to use inside of a building. Our Leapfrog 3D printers aids us in the design process of unique objects, by being able to easily print the current design to evaluate adjustments and changes.

Advantages for the client:

What used to be done by hand, is now done by 3D CAD and simulations by many architects. The 3D printer is seeing a similar evolution. Cortan: "Back in the days, we used to do everything by hand, now we mainly work digital and our Leapfrog 3D printer is a great tool in this process. Details can be produced like chairs, door knobs, parts of a counter etc. We aren't printing complete interiors; but we don't think that will be unlikely in the near future!" Scale models are a great tool to convince the client of a certain unique design. "Our 3D printer creates a tangible object which helps the client understand the whole design."

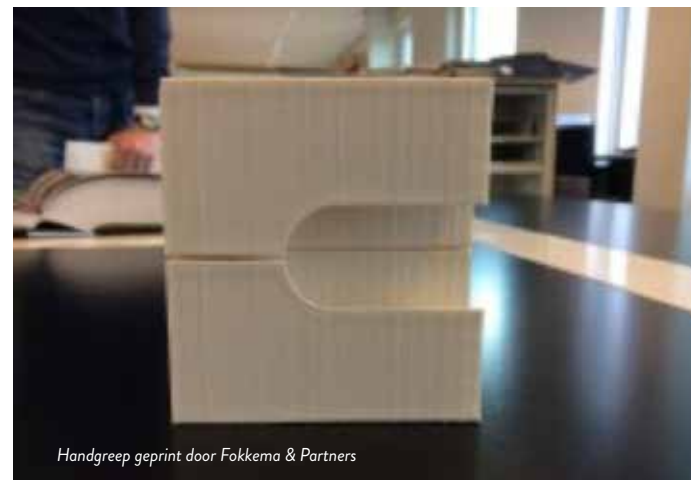
Advantages for the developer:

"We used to share our renders and drawings only with the developer and contractor. We decided to take it one step further, to keep improving our service and business, with 3D printing." Printing complex structures is possible with the Leapfrog Bolt because of its dual head system. One nozzle will print the material of the structure, while the other can print water soluble support. This opens up a big range of possibilities which aren't available for single extruder 3d printers.

"The developer receives a 3D printed model which will provide him with a better understanding of the impact and functions the object has. Remarks and changes can be easily changed afterwards which can create new insights and developments as well". Projects schedules improve heavily and are positively influenced by the use of 3D printing.

Advantages for the architect:

3D printing can also be beneficial for costs. "The chance of getting the design approved by the customer increases when there is a possibility that a scale model can be made. This was usually done in the final stage but can now be done earlier in the designing process with the use of a 3D printer. Which in turn helps improvements and reduces iterations.



Handgreep geprint door Fokkema & Partners

JOHN HEIMENSEM

"The demand for Dutch railway architecture for scale models have been quite low until now. Up until a couple of years ago the scale model industry has been governed by a couple of serial productions. Many model enthusiasts are gratified by getting now offered the complete Dutch railway architecture. CAD techniques and Leapfrog 3D printers gave me the means to answer these enthusiasts by providing on demand unique scale models. The models are more realistic as well, which is highly appreciated!"

"In contrast with sleek textures and laser cut plastic building kits, a Leapfrog 3D printer offers me the possibility to change height and depth in facades en to print in off-angles which look more realistic. Clients can also change certain parts for their needs. With CAD and 3D printing, every scale model will be a model of its own."



Een op school geprint treinstation

"From scale models to unique models. Production times are lower than the older conventional methods and costs are also reduced substantially. Customisation suddenly is affordable for a bigger group of end users. Clients can choose for something with a much higher value than serial productions."

Why Leapfrog?

"My leapfrog 3D printer gave me the opportunity to give my clients any type of quality. Dual extrusion, reliability, easily swapping nozzles and calibrating the print bed, were all features which made me choose for this printer.

"Leapfrog has made it possible for me to bring Dutch architecture closer to model making and making it more than a novelty than just the models you can watch in Madurodam (Dutch scale model themepark) or Miniworld!"

KCAP

Vincent Hector: "KCAP has chosen for a Leapfrog 3D printer for specific detailed 3D printed objects. This mainly helps us get more insight but we also start sharing these with our clients and developers. The 3D printed scale model can be given during presentations which is often received with enthusiasm."

"We design a model in Vectorworks and 3DS Max and export this as an stl-file of OBJ-file. Then I will convert the file to a printable format (G-Code) using the provided Leapfrog software. I found this software user friendly and it is specially developed for the Leapfrog 3D Printers."

"The reason we bought a Leapfrog 3D Printer was for creating scale models of building. These are used for our own use during the design process. But we don't think it is unlikely that these can replace the conventional scale models within a couple of years, as this technique will grow and our expertise will develop.

"We noticed that the use of 3D printing increases within our sector. Clients enjoy receiving 3D printed scale models during presentations which increases the value of each pitch. The 3D printed scale model will also work as a marketing tool, it will be a constant reminder at the office of the client where it will be placed. This results in more benefits that one would expect in the first place."



3D geprint mock-up model