

Going from Concept to Production

3D Systems Digital Light Projector (DLP) technology, FabPro™ 1000

The FabPro may have the size to sit on a desktop, but it is able to perform several applications that are extremely useful in the manufacturing world. FabPro can be effectively used to take a project from ideation to production.

Saving time and money

With 3D printing, the cost and lead time to produce molds isn't necessary. There's no need for tooling and setup. The same equipment can be used to produce a variety of different parts, even ones using complex or custom designs. Printing with the FabPro eliminates the high costs and lead time associated with outsourcing.



This desktop powerhouse packs industrial durability and reliability into a rugged yet compact platform.

Validation of design before tooling

When designing parts, it can often be a laborious process of trial and error to get the right fit. Identifying and fixing design flaws can help companies avoid costly design revisions and tooling changes, saving time and effort.

The FabPro allows product designers and engineers to thoroughly test prototypes that look and perform like final products, validating fit and function which reduces the risks of manufacturability issues before moving into mass production.

Covering the full spectrum of manufacturing

Even from a desktop, FabPro can assist the manufacturing process from start to finish. 3D printing supports designers and engineers throughout product development, from initial concept models to engineering, validation, and finally production.



Printing concept models

Similar to validating designs, FabPro can build proof of concept models and prototypes to prove out design ideas. This helps product designers validate ideas and assumptions and test a product's viability. Physical models also provide a specimen to look at and touch when presenting ideas to stakeholders. This can then aid in driving acceptance or realizing rejection using low-risk, low-cost parts.

FabPro's usefulness in this step is the speed at which it can print. This is key to successful concept modeling. Designers often generate a wealth of ideas, and being able to rapidly print models can validate or disprove the concept quickly. Being able to do this with a FabPro desktop printer, saves not only time, but it also eliminates the need to have a dedicated space for large printers, keeping the validation process in the office or workshop environment.

Creating functional prototypes

FabPro will help shepherd the manufacturing process as ideas are validated and brought to production. FabPro assist engineers in creating functional prototypes that accurately represent the final product. This makes it easier to verify the design, fit, function, and manufacturability before investing in expensive tooling and moving into production, when the time and cost to make change becomes burdensome. FabPro will quickly deliver functional prototypes for real-life testing to assess how a part will function when subjected to its expected usage.



From tough engineering plastics to castable materials, the FabPro 1000 materials are designed for accuracy and quality.

Preparing for manufacturing

Where FabPro has perhaps its greatest value is in validating a design for repeatability. Before going to mass production, each part has to be scalable and affordable. The FabPro facilitates the manufacturing process to reduce the manufacturing costs and keep the cost per part manageable by allowing engineers to create small-batch runs, one-off custom solutions, and sub-assemblies for engineering and design validation. This step is invaluable to take the next step for full production.

Maintaining accuracy throughout production

FabPro production allows tolerances of parts to be tested to the expectations of the completed, manufactured part before moving into mass production. The FabPro can also print parts that support production by creating prototyping tools, jigs and fixtures for the production line. The accuracy that FabPro delivers allows designers and engineers to continuously improve products, and respond quickly and effectively to issues on the line with jigs and fixtures that enhance assembly and other manufacturing processes.