

COULD YOUR PROJECT BENEFIT FROM RAPID PROTOTYPING?

A C L I E N T S U C C E S S S T O R Y



WHAT IS RAPID PROTOTYPING?

When a new custom product or product redesign is needed, it can be tough to properly envision the end product. Each component must meet specifications and work cohesively with the other components involved in the required applications.

Enter rapid prototyping, the process of quickly building a model of the parts in a product to test, verify and validate before production. Leveraging 3D printing to make prototypes with production materials, design changes or improvements can be made before significant tooling investment.



THE iCONN ADVANTAGE

3D printing is the process of building parts from a CAD file, and **rapid prototyping** is the end result.

Rapid prototyping uses 3D printing to fabricate a scaled model of the part. Both 3D printing and rapid prototyping are core skill sets at iCONN. Rapid prototyping allows our engineers to design parts quickly and put them in the customer's hand. It also allows us to create a temporary tool that can be used to produce 50-100 pcs using the same materials the customer will use during regular production.

Having a finished product in 1-2 weeks gets your project in production more quickly, [helping you further your bottom line with fewer errors and higher quality](#). Using rapid prototyping enables us to enhance design attributes early in the process. Innovate your products by using rapid prototyping to help your team stay on track and meet deadlines.

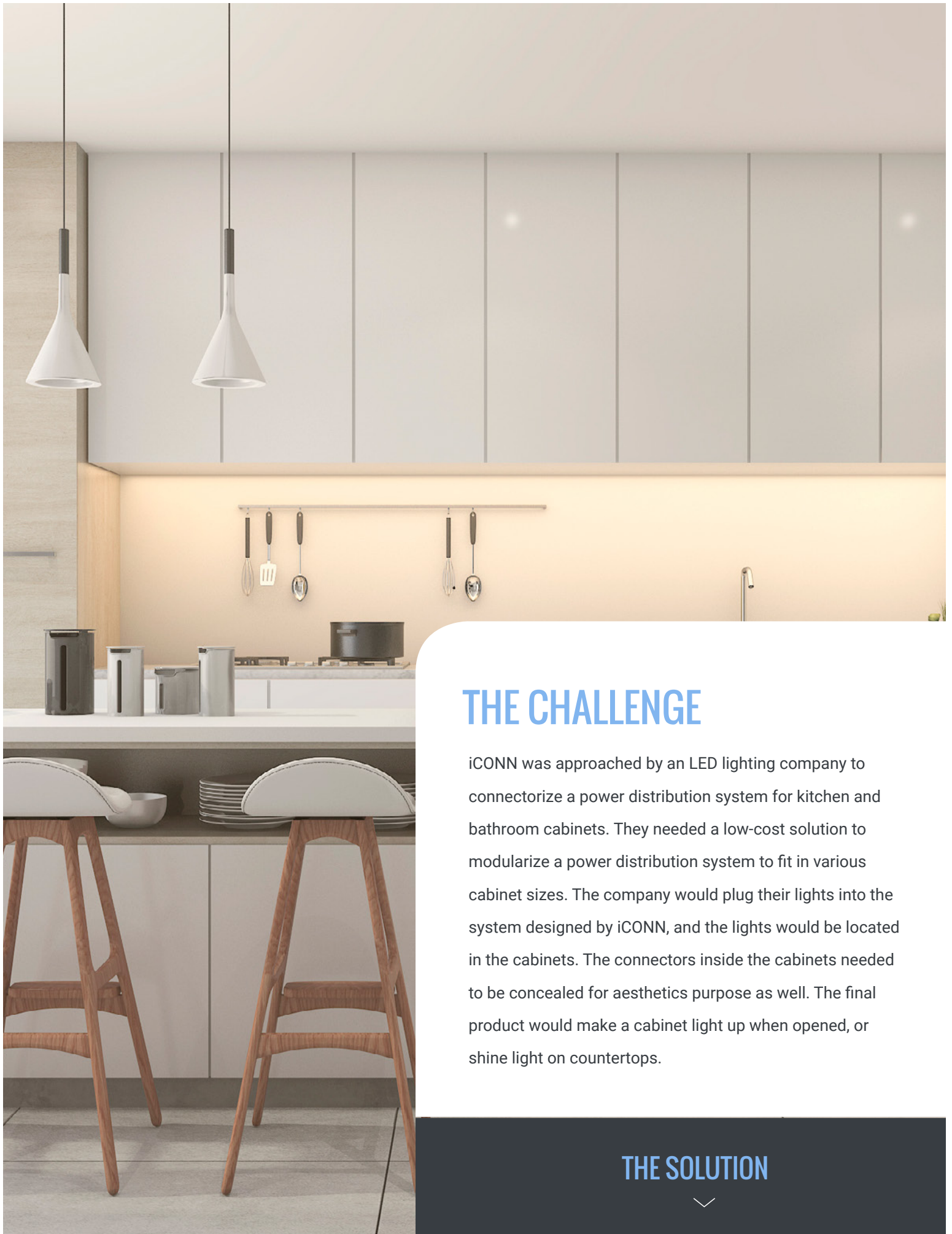
A REAL WORLD RAPID PROTOTYPING SUCCESS STORY

iCONN regularly uses rapid prototyping when working with customers. In the case of a custom or modified standard product, iCONN uses 3D printing to reduce errors and minimize costs for our customer's final product.



THE CHALLENGE





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iCONN was approached by an LED lighting company to connectorize a power distribution system for kitchen and bathroom cabinets. They needed a low-cost solution to modularize a power distribution system to fit in various cabinet sizes. The company would plug their lights into the system designed by iCONN, and the lights would be located in the cabinets. The connectors inside the cabinets needed to be concealed for aesthetics purpose as well. The final product would make a cabinet light up when opened, or shine light on countertops.

THE SOLUTION





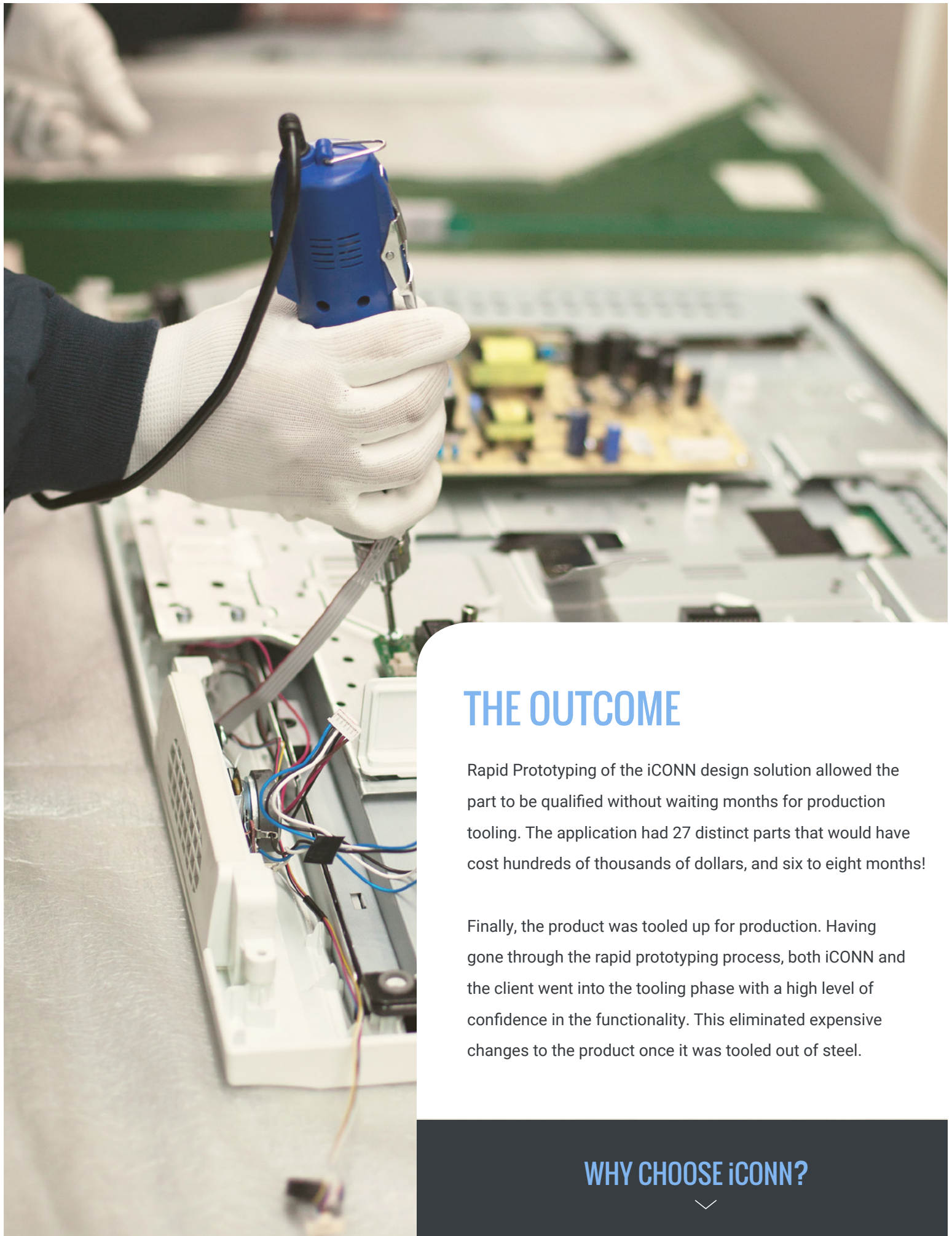
THE SOLUTION

The product went through many design iterations, starting with 3D printing several components and putting them together. The product was put in application (via focus groups and the production process) to determine how well the components worked together and resulted in some design changes. Identifying these changes through rapid prototyping, modifications were made and tested within hours, which ultimately took months off the entire development process.

From there, the product went into the soft tooling phase, 3D printing mold cavities and machining mold cavities out of aluminum to mold the plastic used in production. This method allowed us to provide the product to UL for UL Listing.

THE OUTCOME





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Rapid Prototyping of the iCONN design solution allowed the part to be qualified without waiting months for production tooling. The application had 27 distinct parts that would have cost hundreds of thousands of dollars, and six to eight months!

Finally, the product was tooled up for production. Having gone through the rapid prototyping process, both iCONN and the client went into the tooling phase with a high level of confidence in the functionality. This eliminated expensive changes to the product once it was tooled out of steel.

WHY CHOOSE iCONN?



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iCONN's customers benefit from the company's rapid prototyping process when they need something produced quickly while staying within budget constraints. iCONN's competitive pricing, high-end technology and engineering expertise help make the manufacturing process smoother. iCONN continues to creatively leverage 3D printing to produce low-volume tooling, and actual connector concepts.



CERTIFICATIONS & STANDARDS



OUR PRODUCTS HAVE THE FOLLOWING
CERTIFICATIONS
TO MEET CUSTOMER'S STANDARDS
AND GUARANTEE A QUALITY PRODUCT:

We aim to provide you with a cost-saving approach that keeps your needs in mind. We work to build lasting relationships with our customers, and we've helped create and conceptualize hundreds of successful prototypes over the last 10 years.



READY TO LEARN IF iCONN
CAN HELP WITH YOUR NEXT
CONNECTOR PROJECT?

Speak to an Expert >