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 **Helix**

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[www.helixdesign.net](http://www.helixdesign.net)

• **Product Design**

• Product Forecasting

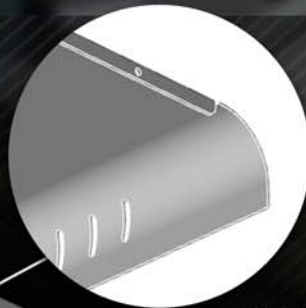
• Engineering

• Prototyping

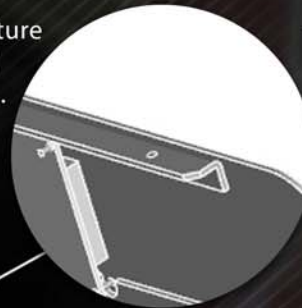
# Mechanical problem solving...



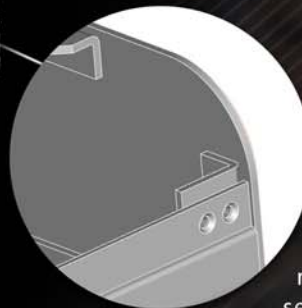
Avoiding welded tabs kept costs low



Toe-in feature simplified assembly...



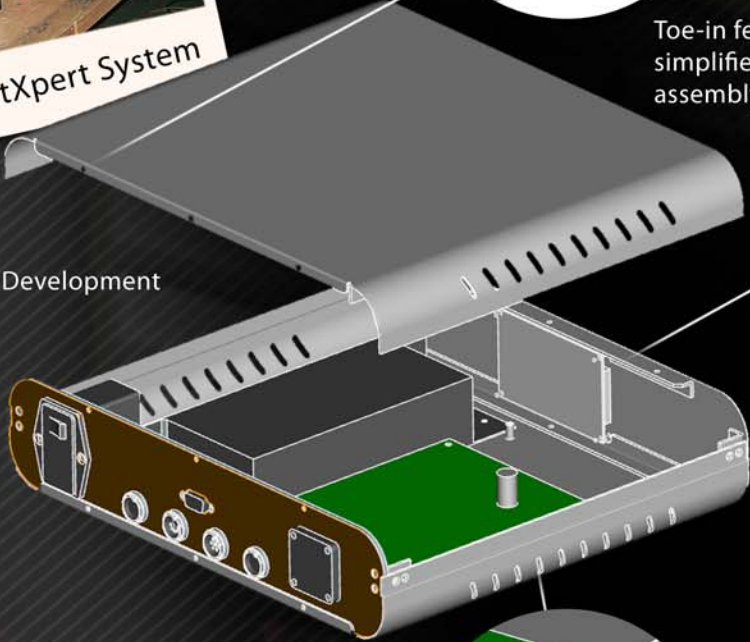
...while concealing fasteners



The Helix Design team analyzed the concept, staying cognizant of application requirements and budgetary limitations, and brainstormed ways to reduce the number of fasteners without compromising structural integrity or making the enclosure more difficult to assemble or service. We devised innovative internal riveted features that allowed the top half of the enclosure to toe-in to the front and screw down securely in the back, and overlapped enclosure edges to mask fasteners and improve rigidity.

ImageXpert was dissatisfied with the look and feel of their "JetXpert" device: while its performance was second-to-none, its off-the-shelf plastic housing didn't promote the sophisticated technology inside and its "boxiness" stood in stark contrast to the refined Apple products it shipped with. Yair Kipman, President of ImageXpert, approached Helix Design with a concept for a sheet metal enclosure that he wanted us to design: it needed to be economical to produce, easy to assemble and service, incorporate existing internal JetXpert components, and exhibit improved venting and cooling. Yair also wanted the design to conceal all fasteners on the front and sides.

CAD Development



Venting features dramatically improved cooling



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## ...and quick-turn product development



Clean lines and concealed fasteners emphasize technology



Printed labels for face and back plates "pop" without finishing or painting



Treatment of back panel emphasizes performance



Finished JetXpert System

To keep manufacturing costs down, we limited secondary operations (such as welded tabs on the radiused back cover edges) that may have improved aesthetics marginally but would have grown the budget. After collecting budgetary quotes from a number of sheet metal contract manufacturers, we followed-up with ImageXpert's chosen vendor to make sure that our JetXpert design was logically executed, appropriately elegant, and easy to manufacture and assemble. We then made final refinements to the design that best aligned with the selected contract manufacturer's internal capabilities, and we supplied a complete 2D and 3D documentation package to the sheet metal house while arranging for our graphic design partner to supply artwork for the back and face plates. Not bad for a very aggressive timeline!

The Helix Design team enjoys product development in all its forms: if you have needs or challenges in one or multiple areas of your product development process, we execute intuitive product design backed up by nineteen years in the business serving wildly diverse markets and industries. Contact Troy Barber @ 603.836.0290 when you want to capitalize on your competitors' caution!

For more information on Helix, please visit:

[www.helixdesign.com](http://www.helixdesign.com)

Thank you for your continued interest in Helix. And we want to thank John Dalessio, Jr. for his service to Helix Design over the past nine years and wish him the best of luck in his new position!

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