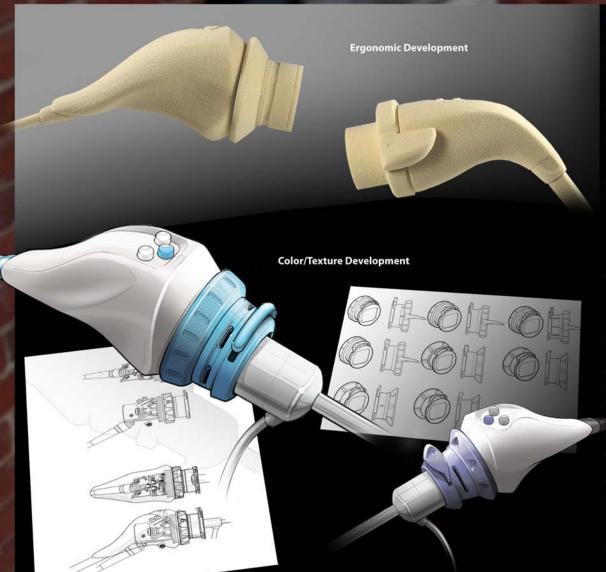


Using hardware underlays to "sketch" foam in three dimensions...



Viking Systems—a leading worldwide developer of 3D visualization solutions for complex minimally invasive surgery—hired Helix Design to generate a cutting-edge look and feel for their next generation 3DHD laparoscopic camera. Given our past successes developing products that needed to feel great in the hand while meeting rigorous performance requirements, we leapt at the chance to assist in developing the industrial design of such an exciting and groundbreaking product for the surgical suite.

Laparoscopic cameras are often held for hours during medical procedures. A thorough but quick understanding of how laparoscopic cameras are manipulated and used during surgical procedures was imperative, so Helix Design team members engaged in an intensive and interactive review of a then-current Viking surgical vision system under the guidance of Viking Systems staff. Once our team felt comfortable with the constraints and challenges of the project, we began to generate foam sketch models for ergonomic review.

We used our "HelixOne" process to generate a range of concepts based on use and ergonomics, hardware, and manufacturing realities to define the look and feel of the camera.

...and providing cutting-edge industrial design for customer implementation!



After Viking narrowed down the concepts to two primary directions, Helix refined the forms further and supplied final weighted foam mock-ups that incorporated production components alongside preliminary surface geometry. Viking also asked Helix to redesign the look and feel of their camera's light source and video controller and supply preliminary 2D documentation for membrane switches and labels. By the close of Q1 2011, Viking Systems' sales increased 63% to \$3.1 million from \$1.9 million in Q1 2010, with the increase attributed to increased sales of Viking's 3D vision systems.

Helix Design has a passionate team of seasoned industrial designers and mechanical engineers who develop products for a wide variety of markets, industries, and applications. We offer full-service product development services and excel at providing profits, peace of mind, and competitive advantage.

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