S t y k u ™
Smart Fitting Room

Startup Revolutionizes Apparel Shopping, Reduces Returns with Virtual Fitting Room

Customer: Styku
Website: www.styku.com
Customer Size: 9 employees
Country or Region: United States
Industry: Professional services—Software engineering

Customer Profile
Styku has pioneered an apparel-fitting visualization platform that retailers can use to let consumers virtually try on clothing before they buy. The Los Angeles-based startup has nine employees.

Software and Services
- Kinect for Windows
- Technologies
  − Data depth
  − Microsoft .NET Framework

Hardware
- Kinect for Windows sensor

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"Utilizing multiple Kinect for Windows depth sensors, we were able to create a full body scan in only one second."

Raj Sareen, Chief Executive Officer, Styku

Styku is out to solve the problem of finding clothes that fit. It paired Kinect for Windows with its software to give consumers a chance to virtually try on clothes before they buy. The technology, soon to be offered by major retailers, such as Brooks Brothers, IM-Label, and others, aims to improve the shopping experience, boost retail sales, reduce returns, and give retailers valuable feedback. Styku moved to market quickly using the Kinect for Windows sensor and software development kit.

Business Needs

While many people love to shop, others hate the frustration of trying on item after item. It's even worse in the online world, where some consumers won't buy clothing for fear of having to return items. Those that do shop online often return up to 40 percent of their purchases ("Finding the Right Fit for Online Clothing Sales," Bernice Hurst, *RetailWire*, January 2012). The problem is compounded for military uniform manufacturers, which often fit thousands of soldiers multiple times a year. Poor-fitting body armor makes soldiers more vulnerable and limits their mobility, which could result in injury ("A decade into war, body armor gets curves,"

Ernesto Londono, *Washington Post*, September 2012).

Styku is a California startup that set out to solve these problems. The company came up with a way for consumers to virtually try on clothes before buying. The solution consists of a body scanner and clothes-fitting software, called the Styku Smart Fitting Room. However, Styku found that earlier commercial body scanners were way too expensive for mass retail use, costing up to US$100,000 apiece, and were also slow and bulky. Most had a scan time of 8 to 12 seconds, during which time people would fidget and compromise scan accuracy.

Solution

In early 2011, Styku learned of Kinect for Windows, a sensor and software development kit (SDK) that provides developers with tools to create a new class of Windows-based applications that use gestures and voice to interact with computers. The Kinect for Windows sensor includes a camera, depth sensors, and multi-array microphone that track body movement. The SDK provides tools for assimilating sensor data to create novel applications.

Styku Founder and Chief Executive Officer Raj Sareen was thrilled to find a sleek, cost-effective scanning solution. "Utilizing multiple Kinect for Windows depth sensors, we were able to create a full body scan in only one second and offer a 3-D body scanner at a fraction of the cost of traditional body scanners," Sareen says.

The Styku software solution is based on an industry-standard 3-D garment-fitting software program. "The Kinect for Windows SDK enabled us to quickly start developing with Kinect for Windows," says Pierre Du Charme, Vice President of Software Engineering for Styku. "The application programming interface is simple, predictable, easy to use, powerful, and elegant. We are very pleased with the users' ability to control our applications using both voice and gestures."

Consumers use the software to virtually try clothing on a digital rendering of their body created with the help of Kinect for Windows. Styku accurately duplicates the garment's fit and fabric characteristics, so consumers can compare multiple sizes for the best fit, within a quarter of an inch. Consumers can even share images with friends on Facebook.

Styku is working with a uniform manufacturer and major retailers, including Brooks Brothers and IM-Label, to move its technology to market by late 2012. Brooks Brothers, one of the largest suit manufacturers in the United States, is testing Kinect for Windows as a way to scale its made-to-measure suit business.

Benefits

Styku used Kinect for Windows to get its technology to market sooner. It aims to revolutionize shopping and increase retail sales. There's enormous potential to lower return rates and improve the customer shopping experience—and even save lives.

Enables Faster Time-to-Market

By using Kinect for Windows, Styku was able to get its technology to market sooner and with a powerful, fast, affordable body scanner. "Kinect for Windows had exactly the sensors that we needed, in a small package," Du Charme says. "The SDK was easy to learn and gave us the tools to quickly implement a full-featured application without having to worry about low-level details."

Improve Online Shopping Experience

Styku technology gives consumers a way to visualize product fit before buying and shortcut the painful "try on" process. Styku's 3-D depictions, with the ability to rotate and view a custom fit color map, gives consumers an intimate feel for garment fit.

Boost Retail Sales, Reduces Returns

Styku estimates that its technology has the potential to double the gross profits of online retailers. "Our technology could increase the likelihood of a sale by 50 to 200 percent," Sareen says. "Retailers can expand their online market, creating a rich, revolutionary shopping experience, with all the advantages of an in-store purchase."

The technology also reduces the likelihood of returns by helping consumers choose the right size. "Each return a retailer can prevent goes straight to the bottom line," Sareen says. "The average loss on a return is a significant percent of the original ticket value, so the savings potential is huge."

Additionally, retailers can better measure the "performance" of garments by using Styku garment-fit analytics. This aggregate and anonymized data helps retailers determine which garments are fitting different body types so they can improve designs and manufacturing processes.

Potentially Save Lives

Styku is working with several military apparel contractors, which like the technology for both its measurement efficiency and accuracy. The earlier referenced *Washington Post* article estimates that body-scanned measurements are 200 to 400 percent more accurate than hand measurements, which could make a difference on a soldier's ability in the field. "A bullet-proof vest that fits perfectly could save a soldier's life," Sareen says. "That's an immeasurable return on investment."
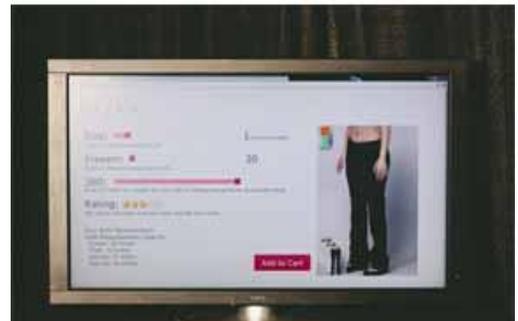
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Styku body scanning
Styku is out to solve the problem of finding clothes that fit. Consumers scan their bodies with the Kinect for Windows sensor in a dressing room. Major retailers including Brooks Brothers and IM-Label are integrating the technology.

Quick and innovative
The scan can be completed in only one second.

Faster than most scanners
After scanning, your results appear on the screen in less than a minute.

Shop without the hassle of the dressing room
Consumers use Styku software to virtually try clothing on a digital rendering of their body with extreme fit precision.

The right clothing for YOU
Styku software accurately duplicates the garment's unique fit and fabric characteristics on the shopper's body.

Someday, shop from home?
Styku hopes to someday see their application used in homes for online shopping.

The future of fashion
The speed, power and affordability of Kinect for Windows make it possible for Styku to envision a future where virtual shopping is commonplace.

Clothes shopping just got a lot easier
Styku takes the frustration out of trying on item after item, searching for the right fit. Get fitted *and* have fun shopping.