



Home improvement retailer Lowe's launched an augmented reality app that allows shoppers to visualize products in their home.

# Lowe's bets on augmented reality

Lowe's Cos. Inc. wants to be ready when augmented reality hits the mainstream.

That's why the home improvement retail chain recently began testing two consumer-facing augmented reality mobile apps. Lowe's Vision allows shoppers to see how Lowe's products look in their home, while the other app, The Lowe's Vision:

In-Store Navigation app, helps shoppers navigate the retailer's large stores, which average 112,000 square feet.

The retailer's new technology and development team, Lowe's Innovation Labs, developed the apps that rely on Google's Tango technology. The nascent Tango technology, which uses several depth sensing cameras to accurately

**In testing two augmented reality mobile apps, the home improvement retail chain aims to position Lowe's as a technology leader.**

By April Berthene

measure spaces, has yet to be widely adopted; the Lenovo Phab 2 Pro is the only consumer device that has Tango.

In testing two different augmented reality apps, Lowe's seeks to position its brand as a leader as the still-new technology becomes more common. About 30.7 million consumers used augmented reality at least once per month in 2016 and

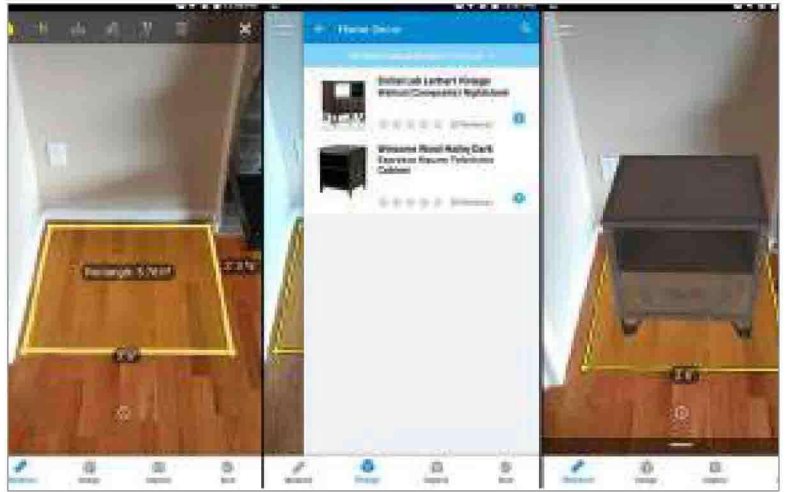
that number is expected to grow 30.3% this year to 40.0 million, according to estimates by research firm eMarketer Inc.

The Lowe's Vision app, which launched last November, allows consumers to use their smartphones to see how Lowe's products look in their home, says Kyle Nel, executive director at Lowe's Innovation Labs. For example, a consumer looking to paint her living room can use the app to see how it will look on the entire wall and how the color coordinates with her couch.

"Visualization is really tough," he says. "We know there are people who want to make a change to their home but don't because they are not sure how one element will go with another element, and all the possible permutations. All those considerations can be paralyzing."

Here's how the Lowe's Vision app works: A consumer downloads the app to her Lenovo device. She then taps on the measure button, which launches her smartphone's camera. The shopper directs the camera at the area where she wants to place products and the Tango technology measures the room. She can then browse through the thousands of 3-D products Lowe's has available. When she taps on a product image, it appears in the camera view on her smartphone's screen. She can move the product around the room with her finger to see how it will look in different places. She can also look at the product from different angles on her smartphone screen by rotating her device and see the product close up by physically walking toward where she placed the object. Shoppers can switch out products and add multiple products into her view.

Shoppers can tell if a product fits in the space they are looking for because the 3-D models are programmed with their dimensions and the Tango technology can accurately measure the space. For example, if the shopper is buying a refrigerator,



The Lowe's Vision app uses Google Tango technology so the smartphone can accurately measure the space, and products are shown to scale.

she cannot pinch and zoom the product image on her smartphone to make it fit in a space. In fact, Lowe's will only show the shopper refrigerators that it knows will fit in that space, Nel says.

Similarly, if the consumer is shopping for paint, the app measures the wall and tells her how much paint she should buy

for the project.

While a consumer cannot complete a purchase within the app, the app opens up the Lowe's Android shopping app when she taps a button to buy the product. For now, Nel says, the augmented reality and shopping apps are separate, so if the consumer hasn't downloaded the shopping app she will be redirected to download it in the Google Play store.

Within the app a shopper can also look at product reviews, save a photo of her room with the 3-D models and create a shopping list of those products and save it to her Lowe's account.

Lowe's created its 3-D product models using a proprietary software the retailer developed. Other retailers that have developed 3-D product modeling software, such as home furnishings giant Wayfair Inc.,

use hand drawing, computer modeling and photography to create the models.

Lowe's in-store navigation app, which is still being tested, is also gaining traction, Nel says based on shopper feedback. While the app can currently be used in two pilot locations—one in Sunnyvale, Calif., which is where Lowe's tests many new technologies because it's close to its technology partners in Silicon Valley, and one in Lynnwood, Wash., where Lowe's has an office—Lowe's plans to roll the feature out to 400 stores this fall, according to Google. Lowe's declined to confirm the number.

The navigation app is meant to help shoppers quickly find products in Lowe's home improvement stores. Lowe's is also testing beacons, which rely on placing small sensors every few feet around the store, Bluetooth and an app to function. However, the technology behind the Lowe's in-store navigation app is cheaper than the beacon-based system, Nel says. The beacon sensor hardware can cost \$5-\$25 per sensor, which can add up for a 2,000-plus store chain, while the navigation app only requires the retailer to map its stores, he says.

The navigation app enables a shopper to search for the products she wants in the store and to add them to a shopping list. Once she's gathered items in her virtual cart she hits the Begin Navigation button, which launches the smartphone's camera. The app factors in the consumer's location and where the products are located in the store, down to the shelf level. When the shopper holds her smartphone a yellow line appears on the screen on the ground in front of her. Following the yellow line on screen leads her to the first product on her list. An image of the product hangs in the distance so the consumer knows which product she is walking toward.

At the two pilot locations store associates have the Lenovo Phab 2 Pro on hand and consumers can check them out for use while in the store. Although the Lenovo device is the only smartphone that offers Google Tango, Nel is confident more smartphones will incorporate the technology in the future.

---

### Lowe's plans to roll out its in-store navigation app feature to 400 stores this fall.

---

Consumer awareness of the pilot is varied, Nel says. Some tech-savvy shoppers in the Sunnyvale location have heard about Google Tango and will ask an associate to use the app without being prompted, Nel says. More often, store associates have the smartphones on the floor and encourage shoppers to use them when they ask for directions, Nel says.

Both apps are available in the Google Play store for consumers that have Tango capabilities. Lowe's is not yet marketing the products to consumers.

Lowe's works with an applied neuroscience vendor Neurons Inc. to evaluate how consumers use both of the augmented reality apps. Consumers can elect to be a part of the study in which they use the Lowe's Visions apps and the retailer can examine how they engage with the app and track how their eyes move across the screen. This is a more effective way to evaluate how certain features work in app, rather than a survey, Nel says. For example, Lowe's may have a button that makes rotating an image easy, however, the retailer may find that many consumers don't see the button and Lowe's has to make it more prominent. These types of adjustments would be harder to discover in a written survey where consumers might state the experience wasn't very good, he says.

"Our studies have shown that many augmented reality experiences can be overwhelming, but the experience we created with Tango is a truly intuitive, engaging and a motivating experience," Nel say, without revealing any more specifics on consumer usage.

Both of the Lowe's apps are in a beta mode and Lowe's will continue to test and tweak them before marketing them to shoppers. ●

---

**APRIL@VERTICALWEBMEDIA.COM @APRILBERTHENEIR**