



# BILT

## Siemens & BILT Innovate to Educate the Next Generation of Electricians

3D Intelligent Instructions® offer revolutionary training for distributors and contractors.

[BILTapp.com](http://BILTapp.com)

According to a Deloitte study, 77% of manufacturers surveyed anticipate “ongoing difficulties” in attracting and retaining workers. The industry is struggling to fill both entry-level and skilled positions. Experts estimate the skills gap will result in 2.1 million unfilled jobs by 2030. To overcome these evolving labor concerns, Siemens actively explores innovative solutions to enable training and expedite reskilling.



### CHALLENGE

Siemens sought to improve training deliverables to help overcome a growing skills gap.



### SOLUTION

Siemens partnered with BILT to provide a portable training platform for distributors and contractors—whether they’re upskilling in-house or onsite.



### OUTCOME

Distributors increased operational efficiency which led to faster fulfillment and higher sales. BILT also enabled contractor speed and efficiency.



Through Siemens University, the SIschool program, and VR training initiatives, the Electrical Products (EP) business within Siemens Smart Infrastructure provides resources for electrical apprentices, electrical contractors, and distributors. The US-based team also creates training for their internal manufacturing, sales, and business development workforce. The effort addresses macro initiatives—such as workforce development and retention—and more specific needs, such as creating customized training tracks for individual partners.

## Making Knowledge More Portable

The team focuses on enabling hands-on assembly and training for their products. Siemens EP delivers this content through traditional channels like classroom instruction, textbooks, videos, and more recently through virtual reality. It's a comprehensive approach.

"The problem is you can't take all of this information to a job site, manufacturing plant, or even a sales call," says Siemens North American Marketing Manager David Quatela. Siemens EP partnered with BILT to enable knowledge transfer and mobility by integrating training into users' phones.

"BILT takes CAD drawings from engineering and converts them into digital animations with step-by-step instructions of how to put together some of our more complex solutions," says Quatela. "It demystifies our assembly and installation processes and makes everyone more efficient. BILT reduces labor time which gets us off the job site faster."

The BILT partnership quickly transformed Siemens EP's relationships with electrical distributors and contractors. This case study provides key findings on how this innovative approach to training affected these two key audiences.

## Increasing Efficiency for Distributors

Over the past few years, the Covid-19 pandemic wreaked havoc on the global supply chain. Distributors who already faced longer lead times on fully assembled goods needed to find a faster, cheaper way to get products to their customers.

**BILT® demystifies our assembly and installation processes and makes everyone more efficient. Reducing labor time gets us off the job site faster."**

David Quatela

Siemens North American Marketing Manager

Siemens responded to this need by providing distributors with multiple components instead of fully assembled products. Distributors then put everything together according to customers' varying needs. "As a distributor, there's a huge value here because there is the potential to receive the product much quicker," says Quatela.

Siemens sought to provide a standardized method for distributors to assemble the components. "We created a 3D experience with BILT to help distributors put together the product as a value-added service," says Quatela.

"Distributors are always looking for ways to differentiate themselves in the marketplace. This is a great way to do that."

## Boosting Distributor Success with Digital Innovation

As Siemens was vetting the viability of the program, they approached a major distributor that was already assembling Siemens products using paper manuals. Each assembly took two employees more than two hours to complete, a total of more than four labor hours.

Siemens and BILT team members went onsite to the distributor to test workers' performance using BILT. The app's digital work instructions shortened the assembly time on that product to less than 90 minutes and allowed a single employee to complete the job alone.

**BILT more than doubled efficiency for this install.**

“That’s a good ROI for our distributors,” says Quatela. The distributor requested that Siemens provide BILT 3D instructions for other products.

As a bonus for clients using the Net Promoter System (NPS), BILT can increase customer loyalty and improve scores. Because faster delivery means happier contractors, “distributors using NPS have the potential to see their scores improve with BILT because they’re impacting their customers’ lives in a positive way,” says Quatela.

## Changing the Game for Contractors

Last year, Siemens was a sponsor at the IDEAL National Championship, which featured teams of electricians competing in timed installations. Apprentices partnered with master electricians to compete in the final event. The contest was to install the P5 Power Panel—the largest footprint distribution panel in the Siemens family. They provided each team an iPad with 3D instructions powered by the BILT app instead of traditional paper instructions

In the pre-contest briefing, one of the pros, Roman Ryszewski of Pennsylvania, strongly objected to using an app for the installation. He is a seasoned contractor and competitor who won the 2017 professional title.

“I’d never used [BILT]. I usually go by the paper instructions or figure it out,” says Ryszewski. But after he began, he realized quickly that something was not right. “So, I turned [BILT] on and in the very first step I could rotate the image to the side view and understand how to put the parts together. Actually, the app was very helpful.”

“For him to need the app, with all his experience, it proves it’s obviously really helpful for when you’re just starting out,” says teammate Brady Wraalstad, a third-year apprentice from Wisconsin. “Everyone could navigate the app with ease, not just those of us who grew up with an iPad in our hands. The 3D modeling features are pretty cool, especially if it’s your first time or if you haven’t mastered the procedure yet.”

“The potential is limitless,” says pro competitor Alec Perkins, a journeyman from Iowa whose team placed second. “It’s unbelievable content. What you’re doing for the industry—especially for future generations of electricians—is paramount for the transfer of knowledge.”

“Hearing that validated everything Siemens and BILT are trying to achieve. And that is to move the industry forward. It’s about an evolution—actually, a revolution—that’s going to change the game,” says Quatela.

## Investing in the Next Generation of Electricians

The next generation of electricians is made of digital natives who grew up gaming and are accustomed to instant access to information. Rather than learning through textbooks or in-person instruction, this generation prefers the flexibility to process information through digital 3D images.




"BILT is absolutely the next step in the evolution of training," says Lab Instructor Christie Peterson of the San Francisco Joint Apprenticeship & Training Committee for Local 6. She was one of the judges at the IDEAL Championships. Peterson says BILT's adaptability and interactivity is ideal for apprentices.

"It's clean. It's clear. It's good," says Peterson. "Sometimes paper instructions are a blurry copy of a copy. BILT gives them the upper hand." She says electricians in training may not see some products in the field for a year or more, but if they had the opportunity to manipulate 3D animations in the classroom, then when they finally see them in the field, it will be easy for them to be successful.

"It's possible trainees could install products without ever having touched the equipment in the classroom if they have familiarized themselves with the 3D instructions," says Peterson. She thinks it's "the next best thing" to a hands-on experience.

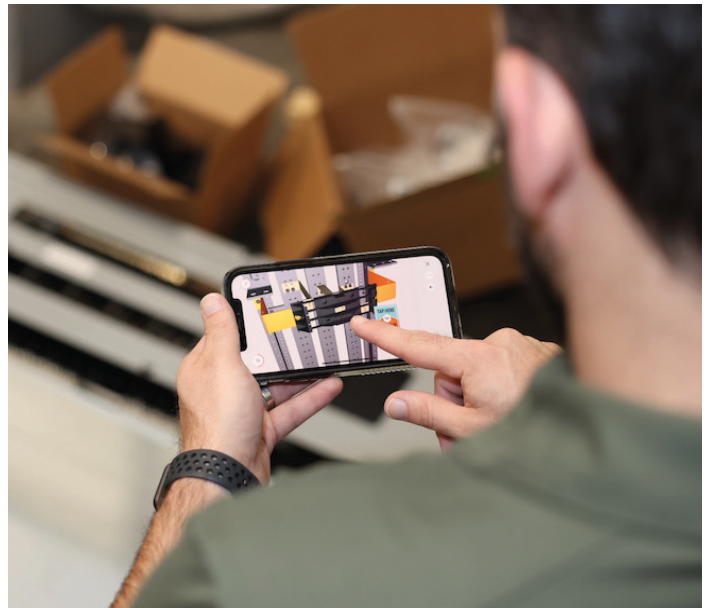
"Everything our team tries to build is centered on teaching," says Quatela. "Sure, there's always a motivation for greater sales, revenue, and profitability. But if we can make that electrician smarter, safer, and more employable—whether it's someone with 40 years of experience or a year-one apprentice—then we're doing our job."

"Safer in terms of installation? Yes. Faster? I think BILT's definitely going to increase productivity," says Peterson. "The app helps you think ahead and plan for all the materials and tools you need for the job instead of making multiple trips." 

## Siemens & BILT: The Hub of Continuous Learning

Looking ahead, Quatela says Siemens must listen to the individual needs of their customers and distributors and continue creating innovative content to remain a leader in this space.

"With BILT, we're just scratching the surface," says Quatela. "We have many other products on our roadmap including getting BILT-based training into our manufacturing plants. Siemens is investing in this space to make both employees and customers smarter, safer, and more confident that they're doing things right."



# BILT®

### About BILT

Millions of users worldwide follow 3D Intelligent Instructions for thousands of projects from ceiling fans to jet engines. The award-winning app maximizes uptime by reducing time on task, callbacks, and calls to tech support. Users can zoom and rotate the 3D animations for optimum understanding. Download BILT on iOS or Android.

[sales@BILTcorp.com](mailto:sales@BILTcorp.com) | [BILTapp.com](https://BILTapp.com)

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