



MASONITE.

MOLEX AND MASONITE UNLOCK INNOVATIONS IN CONNECTIVITY AND POWER TECHNOLOGY TO BRING RESIDENTIAL SMART DOOR TO MARKET

GLOBAL COLLABORATION EXPEDITES DEVELOPMENT OF
INNOVATIVE SMART HOME TECHNOLOGY TO DELIVER
ONE-OF-ITS KIND, AWARD-WINNING SMART DOORS



CASE STUDY



"When you think of innovation, you don't often think of doors," explains Alex Bodurka, Engineering Lead at Masonite. "However, as our homes become better connected with technology, it's time for the access points to advance as well. The new M-Pwr Smart Doors are the first in a new generation of doors that are changing what homeowners expect their doors to do."

Alex Bodurka
Engineering Lead at Masonite

Crossing the threshold into transformative smart home technology requires boundless ingenuity, especially when adding intelligence and connectivity. Perhaps that's why Masonite M-Pwr™ Smart Doors are so impressive. As the first of their kind, these residential exterior doors offer homeowners the best of all worlds: fully integrated power, LED welcome lighting, emergency battery backup, a video doorbell, a smart lock and a door state sensor, so you can always stay connected wherever you are.

The patent-pending technology in these front doors reinforces Masonite's commitment to innovation and its strategy to deliver "Doors That Do More™." Masonite was founded in 1925 by William H. Mason, who developed a revolutionary method for converting large quantities of surplus wood into useful products.

The spirit of innovation behind Mason's first endeavors continues to thrive today—from company headquarters in Tampa, Fla., to the Masonite Innovation Center in West Chicago, Ill., the world's largest private research and development center focused on doors and associated technologies. With more than 7,000 customers around the world, Masonite has become a leading global designer, manufacturer, marketer and distributor of interior and exterior doors.



FRONTRUNNERS IN FRONT-DOOR TRANSFORMATIONS

The concept behind Masonite's M-Pwr Smart Doors was based on the belief that adding power to an exterior door would solve several pain points for homeowners and smart device manufacturers, such as the frequent need to replace batteries. Armed with an early prototype, a small team from Masonite attended the 2020 Consumer Electronics Show (CES) to solicit concept feedback from industry leaders in the smart home space.

What they discovered was a rapidly rising need for built-in technology as the current state of smart doors was dominated by bulky aftermarket devices that caused aesthetic issues, lighting limitations and battery-life constraints. In particular, restricted battery life led to a host of cascading problems because features like video surveillance and remote lock access are only as reliable as the various batteries powering the associated devices.

"We recognized the value of a fully powered system that would provide reliable 'always on' smart technology and lighting," Bodurka adds. "Our goal was to develop a fully powered and integrated door that would allow homeowners access to their smart devices without having to rely on batteries." This approach, however, would require multiple smart technologies to be embedded directly into the door to enable completely novel levels of connected convenience.

Masonite wanted to connect devices to the home's electricity through the door system, and thereby eliminate the need for separate batteries to power lighting, video doorbells and smart lock functionality. Even in a power outage, an embedded backup battery can supply power for up to 24 hours when fully charged. Additionally, LED lighting can be controlled directly from a smartphone app, providing continuous light for safe, secure home access while the door-state sensor communicates if the door was left open or is securely closed.

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COLLABORATING ON NEW LEVELS OF CONNECTEDNESS

Returning from CES 2020 with lots of positive critiques and overall industry interest, Masonite further formulated plans to attain the necessary expertise and components to assemble a product that would be so much more than just a door and a knob.

molex

CASE STUDY

"We needed a flexible and willing collaborator to help us grow in this new area," recalls Bodurka. "We needed to find a company that would work with us throughout the development process—from initial concepts to full-scale production. It also was crucial to find an organization that shared our innovative spirit."

In seeking the ideal collaborator, Masonite was reminded of Molex as the two companies had been introduced in the previous year by a distributor. "Molex's vision of enabling technologies for the betterment of society went hand-in-hand with Masonite's vision of a smart door and connected home," says Daniel Koch, Senior Global Product Manager for Molex's Consumer and Commercial Solutions business. "Our technologies and solutions, encompassing connectors, antennas, power controls and communication signals, fit almost every need of the Masonite M-Pwr Smart Doors."

Masonite also sought a one-stop-shop for all its interconnection needs. Molex delivered all that and much more. "Masonite views Molex as a true industry leader because of the service and differentiated engineering capabilities they provided," Bodurka adds.

Together, the companies embarked on a journey to bring this industry-first product to fruition. It took constant collaboration and multiple product iterations to deliver on each phase of product development in rapid-fire fashion to meet an incredibly

aggressive production timeline. "A major challenge was determining how to route power safely to the door," says Bodurka. "Molex helped us determine the proper routing to avoid pinch points while limiting the possibility of damage during installation."

Molex also worked with Masonite and UL Solutions, a global safety science company known for establishing and certifying product safety standards. "Molex was ideally suited to meet Masonite's needs based on our capabilities and global resources," adds Koch.



AROUND-THE-CLOCK PROGRESS DESPITE A GLOBAL PANDEMIC

Molex's long-held reputation as a highly accommodating supplier of wiring harnesses and connectors was intrinsic to Masonite's plans, which became increasingly critical when the COVID-19 pandemic caused unprecedented supply chain constraints and manufacturing disruptions. "Molex's global presence enabled us to make progress at any hour of the day," Bodurka explains. "They were extremely accommodating throughout the design process—what stands out most is how flexible and transparent they are."



USHERING IN A NEW GENERATION OF DOORS

Fittingly, the Masonite M-Pwr Smart Doors made its official launch at CES 2022. The reception was met with much fanfare, earning numerous "Best of CES" distinctions for game-changing innovation. "When I look back on the successful collaboration between Molex and Masonite during the pandemic, there is a lot to be proud of," Koch says. "I'm most proud of our ability to work together and deliver what Masonite needed to release their first-of-its-kind product to the marketplace."

As more builders begin to offer Masonite M-Pwr Smart Doors, the company remains focused on bringing more disruptive advancements to the door industry. "Both Molex and Masonite rely on innovation and superior customer service to provide industry-best solutions," concludes Bodurka. "It's easy to see alignment between both companies by simply looking at our mission statements. Molex's 'creating connections for life' speaks precisely to the type of relationship Masonite needed to 'make life and living better' through 'Doors That Do More.'"

ABOUT MASONITE INTERNATIONAL CORPORATION

Masonite International Corporation is a leading global designer, manufacturer, marketer and distributor of interior and exterior doors for the new construction and repair, renovation and remodeling sectors of the residential and non-residential building construction markets. Since 1925, Masonite has provided its customers with innovative products and superior service at compelling values. Masonite currently serves more than 7,000 customers globally. For more information visit www.masonite.com.

ABOUT MOLEX

Molex makes a connected world possible by enabling technology that transforms the future and improves lives. With a presence in more than 40 countries, Molex offers a full range of connectivity products, services and solutions for markets that include data communications, medical, industrial, automotive and consumer electronics. For more information, visit www.molex.com.

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