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## This Software Startup Raised \$53 Million To Save Homebuilders Time And Money

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*I cover industrial innovation and climate-oriented technology.* 









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Higharc founders (from left to right) Thomas Holt, Michael Bergin, Peter Boyer and Marc Minor HIGHARC

Higharc reached a valuation of \$233 million by bringing technology to an old-school industry. Its ultimate goal: Make housing more affordable.



arc Minor, cofounder and CEO of homebuilding software startup Higharc, wants building homes to look more like advanced manufacturing. Just as a digital thread can connect the entire factory production process, Higharc's software allows homebuilders to manage the vast number of variables in 3D representations of their homes that follow them throughout the development process, saving time and money.

"I just loved the story of advanced manufacturing and what it is doing," Minor, a former marketing chief at 3D printing firms Carbon and Desktop Metal, told *Forbes*. "That world is what we're carrying into homebuilding."

Despite high interest rates' drag on the housing market, the Durham, N.C.-based company is growing fast. Minor said that the company had \$21 million in software bookings for 2023, and that it was targeting two to three times that amount—a figure that equates to between \$42 million and \$63 million—for 2024. Minor declined to disclose annual revenue. Higharc's customers (which the company said build more than 40,000 homes a year) typically sign contracts for more than one year.

To keep the growth going, Higharc said that it had raised \$53 million led by Spark Capital and Pillar VC, bringing its total funding to \$79 million. The company's new valuation of \$233 million represents "about a 3x step-up" from its previous venture-capital financing in 2021, Minor said. Other investors include an array of top industry names, among them Schneider Electric's venture arm SE Ventures, Home Depot, proptech venture firm Fifth Wall, RXR Realty, Standard Industries' investment group and former Autodesk

ADSK +2.1% CEO Carl Bass.

## "Even if it seems like a highly simplistic tract house, that home could have 80 million variations."

More than 1 million homes are built each year in the United States, some 800,000 of which are built production style in communities—the group that Higharc targets. Like automobiles, buyers customize their new houses by choosing a bay window over a regular one, say, or a different configuration of bedrooms. Different locations have different regulations, and slight changes to land or location create new requirements. "You add this up and there's crazy complexity," Minor said. "Even if it seems like a highly simplistic tract house, that home could have 80 million variations."



His company's software reduces that complexity by allowing developers to design homes in 3D computer renderings and letting buyers make changes to those computerized models based on their choices in real time. The software also manages permit-ready construction documents. The company claims that it can manage house plans and the endless variety of options buyers might want up to 100 times faster than traditional CAD software.

That matters because homebuilding is an old-school industry, which means that making the process go faster and easier could also, at least in theory, make homes more affordable. "Our mission is to bring affordable homes to market," Minor said.

When Buffington Homes, a builder in Fayetteville, Arkansas, some 30 miles south of Walmart's wmt -0.3% wmt -0.3% headquarters, started using Higharc a year and a half ago, process improvement manager Marissa Kaiser figured it was just a nifty visualization tool. But being able to stop outsourcing drawings, a laborious process that required weeks of back and forth on small changes, helped the company to cut the time to market with a new housing

community from 120 days to 30 days. The time savings allowed the company to do a land deal to build a new community in Springdale, Arkansas, that would have otherwise been untenable due to interest costs and fees and to book an additional \$10 million in revenue in 2023 by being ahead of schedule with 20 homes.





Higharc's software helps real estate developers manage the zillions of little choices that go into building a home. HIGHARC

Higharc aims for this rapid reduction in production time to be the norm for its customers, claiming that it can decrease the time between contract and release to production, known as "soft cycle time," by 33%, while cutting the overall design cycle by 75%. The former is especially important because downtime and delays are common during this period, which adds to the cost of building a house. For example, each day that goes by waiting for a permit can cost \$200 to \$500, Minor said.



Minor, 40, launched the company in February 2018, then brought in cofounders Michael Bergin (vp of product), Peter Boyer (chief technology officer) and Thomas Holt (vp of visualization). With Higharc, Minor wants to bring some of the mentality of a digital factory to construction. "Manufacturers have made products better, cheaper, faster," he said. "That's what we are trying to do with homes."

Higharc's software allows homebuilders to "represent their homes as data," said Bergin, who previously ran the generative AI research group for building design at Autodesk. Its generative design engine allows customers to visualize a new home, with all its choices, incorporating information about everything from electrical requirements to lot differences. "We build tools that allow designers to program the homes and their variations," Bergin said. "Then we can generate those homes on demand in the system."

The 3D representations that buyers and developers see look simple, but underneath it is a lot of technology. "The product they built is really, really, really hard," said Spark Capital cofounder Alex Finkelstein, who led his firm's

investment. "It's incredibly hard to build something that works for everyone from procurement to drafting to sales and marketing. If you can do that, you're sitting on all the data and that becomes incredibly powerful."

With the new funds, the company is looking to overlay generative AI tools on top of its existing design software in order to build more tools for estimating and purchasing. It's also targeting materials waste, a big area for improvement as some 5% of a home's price goes to avoidable waste. "That's about \$25,000 on an average house," Minor said. "That is the target."

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