

Amidst housing crisis, Australia's first 3D-Printed, multi-storey home is underway in Melbourne

A multi-storey, liveable home in suburbia printed with AI-powered 3D construction technology will be the first of its kind in the southern hemisphere.

MELBOURNE , VIC , AUSTRALIA, February 10, 2025 /EINPresswire.com/ -- In Melbourne's outer suburbs, a giant robotic crane 3D printer towers over a concrete house being built.

The robotic crane 3D printer is an unusual site in a quiet residential street in Melbourne, Victoria.

But it's no ordinary crane, it's [LUYTEN](#)'s cutting-edge PLATYPUS X12 Crane 3D Construction Printer. It is AI-powered and is making history by 3D home printing the first multi-storey house in Australia and Southern Hemisphere.

While previous attempts of using this technology were limited to single-storey, standard home prototypes printed in 20-24 degrees Celsius weather conditions, this house started printing during a Melbourne summer in 35-42 degrees Celsius heat and frequent storms.

The house design was optimised to introduce features to push 3D printing potential to the limit, such as printing a lift core, and walls with shapes that serve as noise canceling using the acoustic principle of diffraction.

The AI-powered printer uses re-enforced-learning algorithms to help ensure the quality of each layer of the print because the concrete layers are not just about aesthetics, it is structural -- and the AI software ensures precision construction.

The multi-story, 350 m2 home will be lived in, by Ahmed Mahil, the CEO and Global President of LUYTEN.

"As the first CEO to live in a 3D printed house, printed by his own company and his own company's manufactured robots, I intend to break the psychological barrier people may have, and smash any doubts in the industry about the future of 3D printed homes," said Mr Mahil.

3D printing can help deliver faster homes. LUYTEN's multi-storey home is expected to be finished

in 5 weeks, compared to the usual 8-11 months for a build.

3D printing is emerging as an innovative solution to Australia's housing crisis, and it's capturing the attention of the Federal and State governments.

"We've had positive feedback and support from State and Federal governments and late last year we had the Minister for Industry and Science, Hon Ed Husic visit our factory in Melbourne," said Mr Mahil

LUYTEN is also proud to be working alongside the renowned international engineering firm [Bollinger + Grohmann](#) on the certification of the groundbreaking home ensuring structural integrity, safety, and optimal performance of the printed structure.

LUYTEN is also collaborating with the University of New South Wales' ARC Centre for [Next-Gen Architectural Manufacturing](#)'s research and design expertise for the design of the home and AI software inputs to the printer.

By combining their strengths, the group will set a new standard for 3D-printed homes.

About LUYTEN:

LUYTEN's cutting-edge 3D printer technology enables builders to transform construction projects that would traditionally take months or years to complete and instead finish them within a number of days.

The 3D concrete printing revolutionary technology enables 60 percent reduction of construction waste, 70 percent reduction of production time, and 80 percent reduction of labour costs when compared to hands-on construction projects.

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