



The 3D printed neighbourhood in Rancho Mirage has year-round sunlight, perfect for net zero energy living | Photo source [Mighty Buildings/EYRC Architects](#)

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3D-PRINTED HOUSING COMMUNITY BEING DEVELOPED IN CALIFORNIA

 ARCHITECTURE & DESIGN

A housing developer is using pre-fab 3D printing house building kits to construct net zero, smart houses in southern California

Spotted: 3D-printing is coming of age. From printing small toys and keychain, the technology is now used to print everything from metal parts to entire houses. Now, it is being used to build an entire Californian subdivision. 3D printing homebuilder, Mighty Buildings, is working with developer Palari to construct 15 homes on a 5-acre site in Rancho Mirage, California. The \$15 (€12.6) million development will be both 3D-printed, and zero-net-energy.

The homes will each include three bedrooms, two bathrooms and a swimming pool as standard. All power will be provided by solar panels, which can be combined with Tesla Powerwall batteries and EV charging ports, and the homes can also be outfitted with such California-style luxuries as hot tubs and outdoor showers. The homes are constructed from pre-printed panels, that are fitted to steel frames and finished onsite.

The houses are shipped as kits and completed onsite. According to Mighty Buildings, the combination of pre-fab, 3D printing and kit construction saves around 99 per cent of waste, and 95 of labour hours, as opposed to traditional construction methods. These homes will also include intelligent features, such as a DARWIN by Delos, a “state-of-the-art wellness intelligence solution to help enhance human health and well-being by improving indoor air quality and implementing localized water filtration and circadian lighting.”

According to Basil Starr, Founder and CEO of Palari, the choice to use 3D printing was easy. “3D printing allows us to build faster, stronger and more efficiently, making it integral to our platform of streamlining home-building process centred on sustainability of construction, materials, and

operations.” Palari is also planning to build other communities of “sustainable, healthy, smart single-family homes in suburban locations across California, introducing a new era of home building.”

According to Palari, this is the world’s first 3D-printed, zero-net-energy homes community. But these are not the world’s first 3D-printed homes. At Springwise, we have covered a number of other 3D-printed houses, including houses 3D-printed from [clay](#) and [concrete](#).

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Takeaway:

3D-printed, pre-fab houses like those made by Mighty Buildings could eventually end up replacing sticks-and-bricks construction. Not only is it more sustainable and efficient than traditional building methods, but it allows houses to be built and designed much faster. As Palari is demonstrating, it is fully compatible with both customisation and with adaptation for intelligent and zero-net-energy buildings. If you are living in California, prices for the homes start at \$595,000 and go up to \$950,000 for a 10,000 square foot lot with both a main house and a guest house, along with upgrades.