

Tomorrow's world

From tiles made from trash to clothes grown in space: the latest bonkers innovations from around the network



Butterfly helmet
Cyclists can be super visible at night with the Morpho bike helmet by NYC-based design student Jay Qian. A finalist for the Rado Star Prize US, Qian was inspired by the Morpho butterfly, which glows blue thanks to reflections off the scales on its wings. jayqian.com

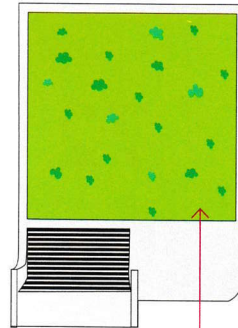


Book now for the Space Hotel

You'll need three months' fast-track astronaut training to stay at Aurora Station, the world's first luxury hotel in space. Planned by Silicon Valley start-up Orion Span, and set to open in 2022, the hotel will float 320km above Earth. On a 12-day trip, guests can bounce around in zero gravity, grow food and take it home as a souvenir, soar over their home town and live-stream their stay to loved-ones below. The hotel will orbit Earth every 90 minutes, so those onboard get to see sunrise and sunset 16 times every 24 hours. Would-be guests have already been putting down a refundable US\$80,000 towards the \$9.5million cost of an out-of-this-world stay. orionspan.com

The power of moss

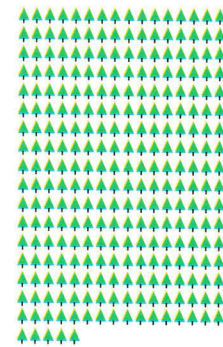
Did you know moss is great at capturing toxic particles in city air before they enter our lungs? Landscape designers like Hay Joungh Hwang, in her medal-winning garden at this year's Chelsea Flower Show, and companies such as Green City Solutions are now harnessing this power. The latter "planted" a 4m x 3m pollution-busting CityTree near London's Piccadilly Circus this spring. Living walls of rainwater-irrigated moss, CityTrees soak up particulates and NO₂ and act as a natural cooling unit, controlled by internet-of-things technology. greencityofsolutions.de



12m² of moss

Absorbs as much pollution as

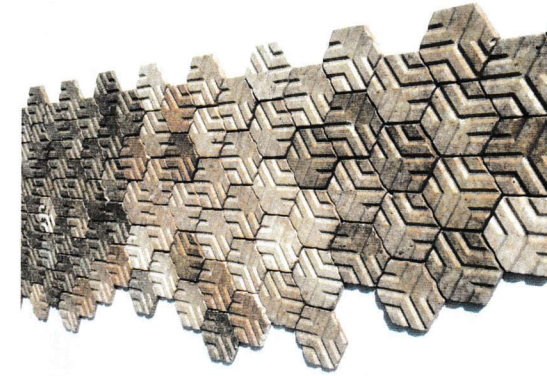
275 trees



and requires

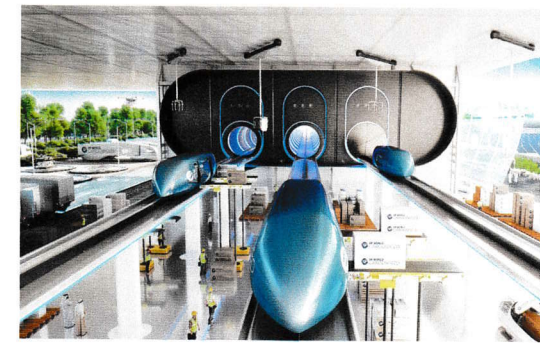
99% less space

FOSTER + PARTNERS, JIE QIAN, MINIWIZ



Tiles from trash, Berlin

If on your travels you've ever seen heaps of plastic waste ruining an otherwise pristine spot and thought, "If only there was a way to fix that" – there is now. Trashpresso is the world's first mobile, off-grid plastics recycling unit, currently travelling to some of the world's most isolated communities, eating up plastic rubbish and spitting out either elegant architectural floor tiles or raw material for other upcycling processes. The unit runs off solar power and has zero water footprint – it filters any water it uses three times so it can be reused. trashpresso.com



Hyperloop freight transport, Dubai

How does it feel to be pulled by magnetic levitation technology through a tube at speeds up to 1,126kph? We could soon find out, as DP World Cargospeed has announced a new hyperloop that will combine transport for freight and passengers. Foster + Partners' visualisations show how the system, using Virgin Hyperloop One technology, would link up with Dubai-based DP World's global network of ports and warehousing. Likely cargo would include fresh food, high-priority medical supplies and express online purchases. A timeline for completion hasn't been specified but this is one to watch. dpworld.com

3 new uses for fungi



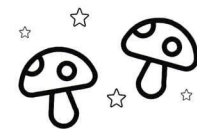
Fungus and sneakers?

Wait, it's not what you think... Nina Fabert and Sebastian Thies have made nat-2 x Zvnder's vegan sneakers from "mushroom leather" with *Fomes fomentarius*, a super-strong fungus found growing on trees. nat-2.eu/nat-2-fungi-line



Grow your own furniture

Sebastian Cox and Ninela Ivanova have mixed mycelium (the root structure of fungus) with nutrient-rich wood waste, which grows around frames to form strong, lightweight furniture that can be composted when you're done. sebastiancox.co.uk



Spores in space

Liz Ciokajlo and Maurizio Montalti propose fashion items that can be grown in space, such as a MarsBoot made from astronauts' sweat and fungal mycelium. ourownskin.co.uk

the future