



The photo-bioreactors use microalgae to remove carbon dioxide from the air | Photo source [Liquid3](#)

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HIGHLY EFFICIENT 'LIQUID TREES' CLEAN URBAN AIR

 SUSTAINABILITY

The installations bring photosynthesis to areas with little to no green space

Spotted: Water-filled containers teeming with microalgae are bringing the carbon-capturing benefits of photosynthesis to even the densest urban areas. Designed as an emergency solution to an urgent problem, the 'liquid trees' are located in Belgrade, one of Serbia's main cities. Belgrade is situated close to two heavily-polluting coal power plants.

Created and designed by the University of Belgrade's Institute for Multidisciplinary Research, the microalgae trees are called Liquid3. Each one contains 600 litres of water and removes the same amount of carbon dioxide from the air as two 10-year-old trees or 200 square metres of lawn. Crucially, the installations work during the winter as well as the warmer, more sunny summer months.

Cleaning the air of greenhouse gases is a huge project, with a variety of solutions. These include finding new ways to remove emissions from the atmosphere, seeking ways to stop emissions at source, and building urban environments that integrate clean air into the design.

Recent innovations spotted by Springwise include a [modular carbon capture system](#), and a carbon capture system that [turns pollution into rocks](#).

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Takeaway:

Trees are an important tool in the fight against climate change. Photosynthesis removes carbon from the atmosphere and draws it down into the body of the plant and the soil. In recent years there have been attempts to create man-made [mechanical trees](#) that perform the same role, but these remain at the prototype stage. The Liquid3, makes use of naturally photosynthesising microalgae to perform the same role as trees in an urban area lacking in greenery. Microalgae photosynthesise 10 to 50 times more efficiently than trees, and the Liquid3 installations can fill urban pockets where there is no space for tree-planting.