

CityTree: The oxygen-producing forest in miniature

By [Emile Uys](#)

27 Sep 2017

CityTree is the centrepiece design of Green City Solutions, an ecologically-minded design firm committed to the betterment of city life at large. It is a high-tech installation of moss clusters that catch impurities in the surrounding air and, due to the unique way the plant leaves are layered to filter air through it continuously, CityTree has the same positive environmental impact as 275 regular trees.



The green wall takes up 3.5m² in floor space and is just under 4m in height. It includes a sleek bench seat on both sides, as CityTree is designed to be situated in open public spaces, and room for poster advertisements on its flanks. It is a supercharged version of a natural crop of woods, emitting oxygen while scrubbing the local air of dust, nitrogen dioxide and ozone gases.



Though CityTree is based on the air-cleansing concept of a tree, it is technically known as a moss culture. The system has an internal computer and Wifi sensors that measure air temperature, soil humidity and quality of rainwater which is collected inside a reservoir for automated irrigation. It has a fleet of solar panels to power its interior processes, minimising the need for human interference. CityTree calculates the quality of air around it to measure its own efficiency and effectiveness over time.



“We want to create living conditions that allow all people around the world to permanently have clean and cool air to breathe,” say the creators of the CityTree, “And we’re achieving that by linking the natural abilities of plants with cutting-edge technology in a unique way. With that we make a measurable and sustainable contribution to the development of intelligent and future-proof cities.”



Since its inception in 2014, Green City Solutions have installed around two dozen CityTrees in bustling urban areas around the globe including Paris, Jena, Oslo and Hong Kong. At approximately \$25,000 a pop, CityTree remains quite a costly device for municipalities with more urgent troubles to tackle and there have been issues regarding their safety against vandalism. But the design of Green City Solutions constitutes an interesting way to channel the positive effects of nature into polluted cities with help from modern high-tech thinking that takes up as little real estate as possible.

For more, visit: <https://www.bizcommunity.com>