

Solar-Powered Trashpresso Converts Plastic and Fabric Waste into Floor Tiles

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By [Derek Markham](#)

A 40-foot shipping container platform holds a complete mobile waste recycling plant capable of upcycling plastic and fabric waste into architectural tiles.

Dealing with recyclable materials in the developed world, which often has a recycling infrastructure in place, isn't nearly as difficult as dealing with waste in off-grid and remote areas, where plastic and other waste materials would require costly hauling to a location with recycling facilities. But a new device from Miniwiz, a company which focuses on "turning post-consumer waste into high performance materials," could be one solution for not only handling recyclable waste items in isolated communities, but also for upcycling plastic and fiber waste into architectural tiles, or converting it into raw materials for further manufacturing processes.

One of the key elements of the Trashpresso machine is its self-powered nature, thanks to solar panels on its exterior, which means that it doesn't require access to the grid or a generator to produce enough electricity for the waste upcycling processes. Another is its physical format,

which is the size of a standard 40-foot shipping container, that allows the Trashpresso to be moved nearly anywhere a tractor trailer can reach, including remote locations.



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According to [Miniwiz](#), “Once stationed, the TRASHPRESSO container opens much like a satellite unpacking in orbit. Trash is collected locally, then washed, shredded, melted, and molded through an automated process. The water required for cleaning the trash is reused by being cycled back into the process.” The Trashpresso machine was unveiled in Shanghai on Earth Day 2017, and documented by National Geographic for the new documentary series “Jackie Chan Green Hero.”

According to [NewAtlas](#), the Trashpresso will be deployed in July of this year “to clean up the glacier region of NianBao Yuze, which sits on the Tibetan Plateau and feeds into the Yellow, Yangtze and Mekong rivers,” and which has seen a recent increase in litter due to growing tourism.

“Until now, industrial grade recycling was limited to plants. The Trashpresso overcomes the distance and energy barriers by showing that recycling is possible everywhere. Not only does it serve to transform trash on-site, it also serves as an educational tool in isolated communities.” – Arthur Huang, co-founder and CEO of Miniwiz

Taiwan-based Miniwiz has been working on waste-to-materials since 2005, and has developed products like [Polli-Brick](#), a building material made from 100% recycled PET plastic, as well as [designing and building store interiors](#) from waste-based materials for such companies as Nike.
