

Faster, cleaner, less expensive method of dry cleaning

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Two Purdue University graduates are developing a device called Presso, a kiosk garment cleaning device that takes only three to seven minutes to clean clothes through a combination of steam, a cleaning liquid and air drying. The kiosk is less expensive than conventional dry cleaning and also more environmentally friendly. Credit: Purdue University

The most commonly used chemical in the dry cleaning industry is a solvent called perchloroethylene, or PERC. The Environmental Protection Agency has classified the chemical as a likely carcinogen, and the U.S. Occupational Safety and Health Administration has linked acute exposure to it as causing dizziness, blurred vision and loss of coordination.

A pair of Purdue University graduates are developing a device called Presso, a [kiosk](#) garment cleaning device that takes only three to seven minutes to clean clothes through a combination of steam, a cleaning liquid and air drying.

"Tackling this issue of making dry cleaning more environmentally friendly seemed like a worthy cause that could affect [climate change](#) in a meaningful way," said Nishant Jain, co-founder of Presso Inc., who is an electrical engineering technology graduate from the Purdue Polytechnic Institute.

Jain and co-founder Thibault Corens, who earned a double major from the Purdue Polytechnic Institute in mechanical engineering technology and manufacturing engineering technology, have spent recent months in HAX, a hardware-focused accelerator program in China, working on the technology. They are now working on developing kiosks that they plan to initially make available through hotels.

Dry cleaning and laundry also can be expensive, consumes time and uses a lot of electricity.

"Our [technology](#) uses 100 times less water and three times less electricity per garment than laundry," Corens said.

The kiosk may be able to do most of the work people use [dry cleaning](#) for most often, removing dirt, sweat, smells, bacteria and wrinkles.

"We spoke to a lot of people and we found that those were their main reasons for taking their clothes to a dry cleaner," Corens said.

Jain describes the steam cleaning kiosk as the [microwave](#) of laundry. Similar to how the microwave can be used as an alternative to the oven in order to quickly heat up food, Presso can be used as an alternative to the washing machine to quickly clean a piece of garment.

"People have both microwaves and ovens, but microwaves are the ones you go to more often because they are quick," Jain said. "Although microwaves don't do everything, you can certainly use them as an alternative to the oven in a lot of different situations."

The kiosk can't yet remove all stains, but Jain and Corens are working on that.

The pair has already conducted pilots with apartment complexes and hotels and has more hotels lined up for their pilot program this summer. They are looking for more hotels in Indiana and Chicago to participate in the pilot program. They will begin fundraising in fall 2019 and are looking for investors interested in the company.

Provided by Purdue University

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