

Is Your Office AC Freezing You? This Heater Follows You Around With A Bubble Of Warmth

MIT'S LOCAL WARMING PROJECT USES MOTION TRACKING DEVICES TO WARM UP PEOPLE, INSTEAD OF EMPTY ROOMS.

0 NOTES /

0 PIN /

3 PLUS /

27 TWEET /

29 LIKE / 4 SHARE

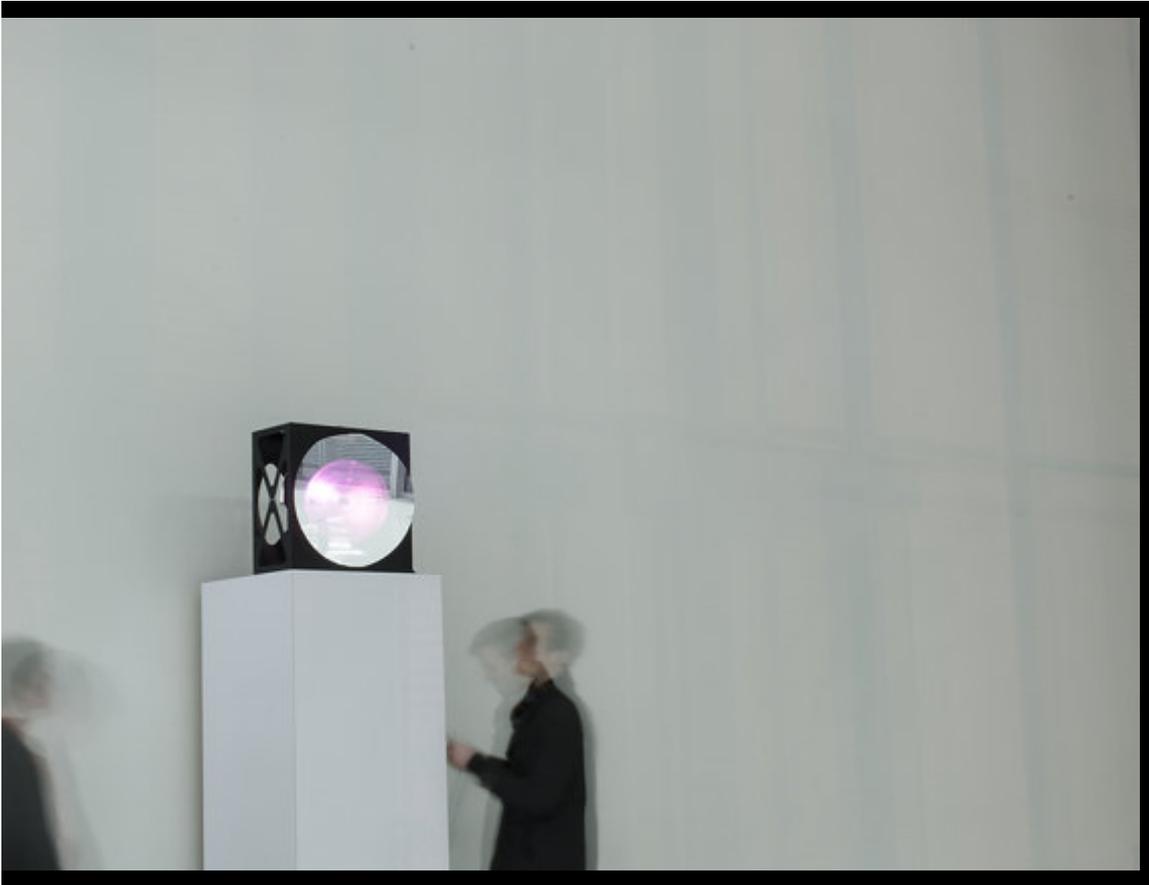
At any given time, as much as half of a big office building might be unoccupied, even during the day. But since antiquated heating and cooling systems have no way to tell whether a lobby or conference room is empty, they pump out air everywhere, wasting huge amounts of energy in the process. When next winter rolls around, businesses will spend millions heating extra space. But what if heaters followed people around, rather than heating entire rooms?

Local Warming, a project from MIT Senseable City Lab, uses Wi-Fi motion tracking to figure out where people are in a given area, and then surrounds them in a bubble of infrared heat. It's a little like Comfy, an app that allows office workers to adjust heat or cold in their corner of the building, but in this case, it's completely personalized and bypasses the usual central building system.

"An individual thermal 'bubble'--which can be set based on individual preferences--follows each human throughout a building, ensuring ubiquitous comfort while minimizing overall heat requirements," explain Senseable City Lab director Carlo Ratti and research fellow Miriam Roure. "The use of infrared allows heating people directly, instead of the spaces around them."

In a large space like a lobby, the system could reduce energy consumption by as much as 90%. The device could even be used outside as an ultra-efficient alternative to the heat lamps that show up at outdoor cafes.

It can also be tailored to individual preferences, unlike central heating. "You can instantly change the settings to your desired heat, and the system can immediately respond to match that comfort level," say Ratti and Roure. "It's like laying in the sun--but it's your personal sun."



technology for cooling, though it's a trickier problem. One possibility, they say, might be controlling a network of wearable devices that are in direct contact with the skin.

The heater is on display now at the [Venice Architecture Biennale](#), and the researchers plan to continue developing it, perhaps eventually bringing it to market with a new startup.