

# We have liftoff: 'hoverboard' takes flight

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The first 10 hoverboards—costing \$10,000 apiece—have sold out in advance

Ever since Marty McFly rode on one in 1989's hit film "Back to the Future Part II," fans have dreamed of having their own levitating skateboard, or "[hoverboard](#)."

That wish has now come true, as engineers in Northern California have turned the futuristic device into reality.

The Hendo Hoverboard levitates on conductive surfaces: defying gravity,

it floats about an inch above the ground, powered by four disc-shaped magnetic engines.

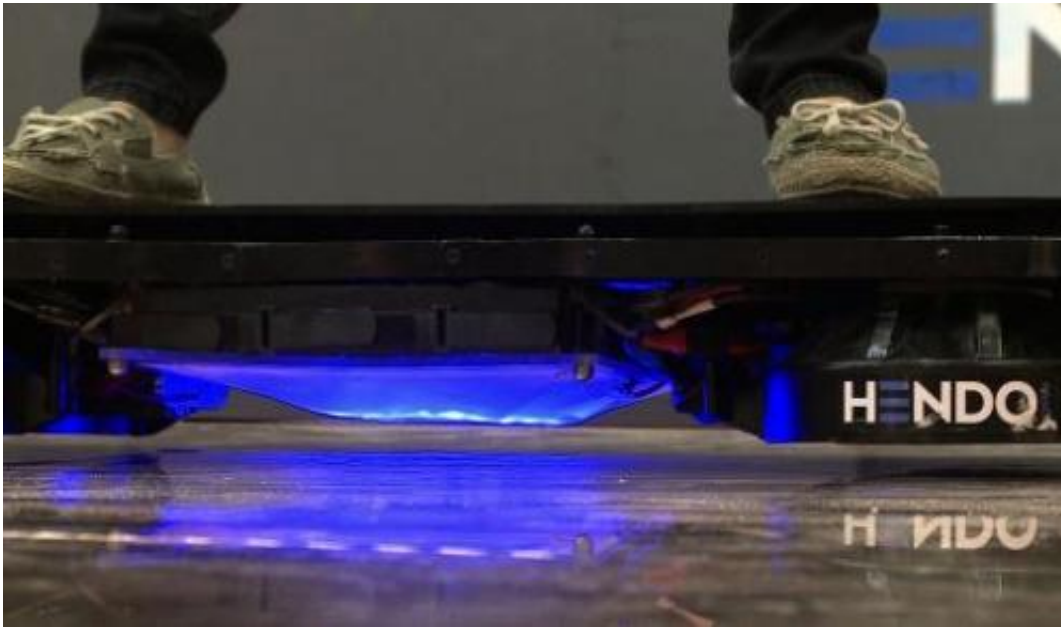
That means you can ride it just like a skateboard on a ramp-style platform, albeit one made only of metal or otherwise electricity-conducting material, to produce the [magnetic field](#).

It can move speedily, if noisily, in multiple directions, as well as turn around. The battery only lasts seven minutes, but that is still enough time to take a grown adult for an exhilarating ride.

The [technology](#) that propels it is called Magnetic Field Architecture, developed by the startup company Arx Pax, which turned to the Kickstarter crowdfunding website to raise so-called seed money to bring it to market.

"We want to seed this hover ecosystem by putting the technology into the hands of all those tinkerers," said Jill Avery Henderson, co-founder and [chief operating officer](#) of Arx Pax.

The board itself—which is partly made by a 3D printer—levitates on top of conductive materials such as aluminum or a copper half-pipe, which its makers have been using to show off their device.



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Arx Pax chief executive Greg Henderson, who founded the company with his wife, explained the technology behind it.

"We are creating a magnetic field, and then through a method of induction, that's part of our secret sauce, we are creating a secondary and equal magnetic field in this conductive surface," he said.

And the couple believe their technology could be used for all sorts of purposes, even for example designing more earthquake-resistant buildings—a particular concern in quake-prone California.

In theory with more powerful magnets, an entire building could be made to float off the ground, albeit briefly.

"Imagine there's an earthquake and the early warning turns on the warning systems and the (concrete or other physical) supports fall away as the building starts to hover," said Henderson.

"The shaking stops, the supports return, and no one in that room or in that building ever knew there was an earthquake."

The pioneering pair long ago reached their target of \$250,000 on Kickstarter, and the first 10 hoverboards—costing \$10,000 apiece—have sold out in advance.

But for far less money amateur inventors can get their hands on a developer kit—and theoretically use the technology to make anything hover. "Curious minds, the power of many minds as Greg likes to say," said Jill.

"By putting this technology in their hands, we'll be able to solve problems we didn't even know exist."

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