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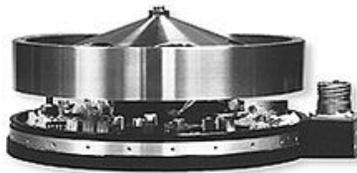
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Whoa,

This Sofa Balances On One Leg Thanks to Spacecraft Technology (<http://gizmodo.com/whoa-this-sofa-can-balance-on-one-leg-using-spacecraft-1201281074>)

Part of what artists are great at is re-contextualizing technology in weird and often amazing ways. That is exactly what artist Jacob Tonski (<http://www.jacobtonski.com/>) did for a recent installation that involved balancing a 19th century sofa upright on one leg. The result is Inception-like wonderment.

At first glance, you'd have to think *Balance From Within* (<http://www.jacobtonski.com/balance-from-within/>) is some kind of optical illusion, or that the sofa is somehow attached to the floor, or hanging from the ceiling. But no.



Tonski was able to pull it off by using a piece of tech called a reaction wheel.

A reaction wheel is used primarily in satellites and other spacecraft, in order to make automated adjustments to the craft's orientation in space, without using fuel or rockets. One example of its use would be to keep a space telescope precisely pointed at a spot in space. In fact, reaction wheels are a part of the Hubble telescope's control system. It is basically a motor-driven flywheel that is constantly spinning. When the speed of the wheel is altered, the craft responds by counter-rotating around its center of mass.



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Tonski incorporated a two-axis reaction wheel into the sofa he found in the back of an antique store, to truly mind-bending effect. Still, there's the off-chance that the sofa could be knocked over. So Tonski altered its original construction, using magnets to hold its various parts together. That way, they can break away without serious damage if the couch does fall (and can be snapped back together with ease). If only reassembling a spacecraft was so easy. [via Faith is Torment (<http://www.faithistorment.com/2013/08/balance-from-within-installation-by.html>)]

Balance From Within was created as part of Jacob Tonski's residency at the *STUDIO of Creative Inquiry* (<http://studioforcreativeinquiry.org/>) at Carnegie Mellon University.

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13 discussions displayed because an author is participating or following a participant.
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★ Author is participating

 **ninjagin** (<http://ninjagin.kinja...>)
3 ★ (/posts/1201706651/reply)

Wow. This is some fascinating artwork. What a delightful read for a Monday. Many thanks.
8/26/13 12:24pm (<http://gizmodo.com/wow-this-is-some-fascinating-artwork-what-a-delightfu-1201706651>)

 **Michael Hession** (<http://mich...>)
★ (/posts/1201717996/reply)

you are welcome! thanks for reading!
8/26/13 12:26pm (<http://gizmodo.com/you-are-welcome-thanks-for-reading-1201717996>)

 **RedEyedTGuy** (<http://redey...>)
1 ★ (/posts/1202700252/reply)

If anyone else here is a computer tech (or just dealt with computer hard drives) any reasonable amount they have likely felt this effect. If not, take the opportunity to hold an internal (might work with externals too not sure) hard drive vertical with the power/sata ports facing toward the floor while its plugged in (don't use a good/production/in use drive, duh) and move it around on it's axis in different directions. I had this Seagate external drive and the base kind of broke but it would balance on its edge as long as it was

★ Author is participating

 **aero239** (<http://aero239.kin...>)
★ (/posts/1201848692/reply)

I say fail because of the cord. If it's plugged in you know something is at play here. Couldn't he have incorporated some inductive charging and made it seamless?
8/26/13 12:48pm (<http://gizmodo.com/i-say-fail-because-of-the-cord-if-its-p>)

 **Michael Hession** (<http://mich...>)
★ (/posts/1201862744/reply)

there's just no pleasing you! :)
8/26/13 12:51pm (<http://gizmodo.com/theres-just-no-pleasing-you-1201862>)

 **CaptainJack** (<http://captainj...>)
★ (/posts/1202203460/reply)

I would have thought with the complexities of a reaction wheel, that inductive power or in the very least just some contact pads on ^{4 participants} foot, would have been a no brainer.
8/26/13 1:44pm (<http://gizmodo.com/i-would-have-thought-with-the-compl>)
5 ★ (/posts/1201859872/reply)

It would be even better to use it as a hidden camera gag. Have the display at a museum, make it fall when someone walks by,