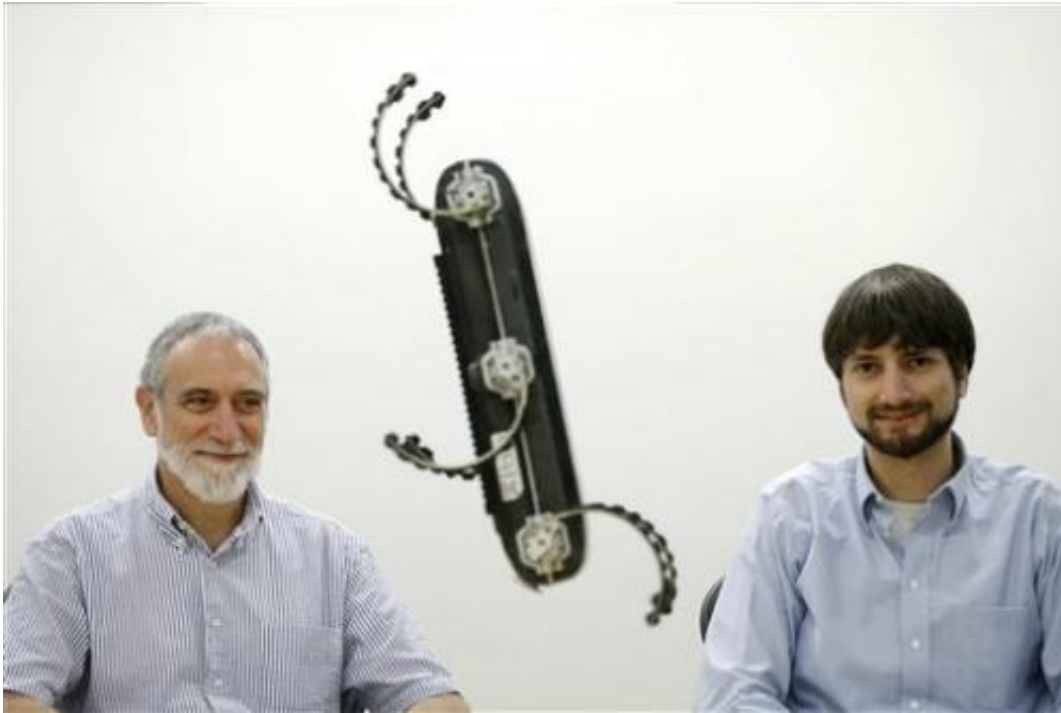


# US researchers create robot that jumps

August 13 2013, by Keith Collins

---



Engineering professor Daniel Koditschek, left, and doctoral student Aaron Johnson pose for a portrait as they demonstrate the X-RHex Lite robot, Tuesday, Aug. 13, 2013, at the University of Pennsylvania in Philadelphia. Researchers at the university have given the new robot a leg up on its ancestors by outfitting it with jumping and climbing abilities. (AP Photo/Matt Rourke)

Researchers in the U.S. have put together a robot that can jump and climb.

That could make it particularly useful for military search missions or

supply transport.

The RHex [robot project](#) at the University of Pennsylvania began about 15 years ago, when researchers at several universities began asking how robots could be able to traverse rugged terrain as well as animals do.

Legged robots, unlike wheeled ones, have the animal-like ability to overcome obstacles like stairs and ledges. But until the latest RHex, developed by engineering professor Daniel Koditschek and doctoral student Aaron Johnson, legged robots couldn't negotiate gaps in terrain any better than robots with wheels.

Johnson has developed mechanisms that allow the [robot](#) to jump over gaps and holes that it previously would have fallen into. And where tall ledges would typically block a robot's path, RHex can maneuver onto platforms more than four times its own height.

Koditschek and Johnson designed the latest version of RHex using lightweight carbon fiber. This allows it to perform its leaping and climbing functions without consuming too much power.



The X-RHex Lite robot at the University of Pennsylvania, has its ability to jump demonstrated on Tuesday, Aug. 13, 2013, in Philadelphia. Researchers at the university have given a new robot a leg up on its ancestors by outfitting it with jumping and climbing abilities. (AP Photo/Matt Rourke)



The X-RHex Lite robot is shown at the University of Pennsylvania, on Tuesday, Aug. 13, 2013, in Philadelphia. Researchers at the university have given the new robot a leg up on its ancestors by outfitting it with jumping and climbing abilities. (AP Photo/Matt Rourke)

The RHex project was originally funded by the Department of Defense division that's in charge of developing [military technology](#), and the latest version is funded by the U.S. Army.

© 2013 The Associated Press. All rights reserved.

Citation: US researchers create robot that jumps (2013, August 13) retrieved 23 April 2024 from <https://phys.org/news/2013-08-robot.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.