

# Boston Dynamics hands Atlas a parkour repertoire

October 13 2018, by Nancy Owano

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Oh, please. We are still coping with the view of Atlas taking a leisurely run through the neighborhood like a boss planner out for his cardio workout before taking off for his first meeting. What could possibly be next?

Next: Boston Dynamics has updated the world on Atlas in a video posted

October 11. Short and sweet: Atlas does parkour.

No argument when Luke Dormehl in *Digital Trends* called this parkour-capable robot's stunts "frankly [astonishing](#)."

Back-pedal for a moment, though, and consider the hoops Atlas the robot has successfully gone through to be where it is today. Engineering to do parkour-style stunts was preceded by evolutionary steps. First, said *New Atlas*, Atlas mastered balancing, and before you could say Friday the Thirteenth, there was footage of the robot learning how to do a backflip.

"The big 2018 innovations for Atlas seem to have been mostly concerned with the robot learning how to navigate tricky terrain in real-time."

What is parkour? It has its roots in military obstacle course training, No assistive equipment. Plenty of reasons to fall over and give up. This is a training discipline that sets a complex environment where requirements include such movements as running, climbing, vaulting, jumping and crawling.

Atlas in the video is wonderful in jumping, showing excellent control. How Atlas achieves such balance: computer vision serves to locate itself with respect to visible markers on the approach, hitting terrain accurately. The team said that "The control software uses the whole body including legs, arms and torso, to marshal the energy and strength for jumping over the log and leaping up the steps without breaking its pace."

They used a step height of 40 cm (1.3 ft) and the highlight of the viewing experience is seeing how the robot is superior in its leaping up the 40-cm steps.

Boston Dynamics said the robot's hardware takes advantage of 3D printing, to save weight and space. The team boasts of the high strength-to-weight ratio.

Brandon Hill in *HotHardware* points to what is different about the "now" Atlas from the Atlas of older views. Mainly, Hill wrote that we saw Atlas previously having to stop, to gather its "thoughts", and then use [propulsion](#) from both feet.

"This time around," Hill said, "Atlas leaps over the log mid-stride using just one foot to push off from the ground. It continues forward after landing with its somewhat stilted gait without skipping a beat."

Matt Simon in *Wired* had an eye-catching movement too, as he described seeing Atlas "bounding up a multi-layered [platform](#), shifting its weight from its right foot to its left foot, and back to the right foot as it runs up the steps."

One tries not to join the bandwagon of observers that associate Boston Dynamics' advanced robots with words like "nightmare" and "creepy" and "Armageddon" but, inevitably, whether predicting doom or not, there are attempts to figure out where the Atlas evolution will one day lead. One can imagine but not be certain.

Rich Haridy in *New Atlas* shared this perspective: "Despite Boston Dynamics being sold by Google's parent company Alphabet to Japanese company SoftBank for an undisclosed sum in 2017, there has been no indication as to what [direction](#) the robot's development is heading. No commercial or private outcome has ever been disclosed, so at this point it seems the engineers are still simply working on making the most mobile humanoid [robot](#) they can."

"The company has suggested Atlas may one day be used in [search](#) and

rescue operations," said the BBC.

"While this is just one demo showcase, the technology exhibited here could also be enormously useful in the real world, where the ability to see environments in terms of how they can help with locomotion (for instance, a wall that could also be a platform) would make robots such as this useful in a range of scenarios," said Luke Dormehl in *Digital Trends*.

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Citation: Boston Dynamics hands Atlas a parkour repertoire (2018, October 13) retrieved 2 May 2024 from <https://techxplore.com/news/2018-10-boston-dynamics-atlas-parkour-repertoire.html>

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