

PETMAN stress-tests clothes for hazardous environments (w/ video)

April 7 2013, by Nancy Owano



(Phys.org) —PETMAN, the anthropomorphic, arm-pumping, walker who can step off the treadmill long enough to do some morning pushups, is a remarkable member of Boston Dynamic's stable of robots.

PETMAN is remarkable in its humanlike range of movements, a visually entertaining match for the likes of Big Dog and Cheetah. Visual entertainment, however, is not the top agenda item for Boston Dynamics, with a number of projects that get funding support from the Department of Defense and which deliver functional goals. This time around,

PETMAN is impressing viewers with this month's released video of the latest and greatest performance, dressed in a hazmat suit and gas mask.

PETMAN (which stands for Protection Ensemble Test Mannequin), is a Boston Dynamics [robot](#) specifically designed to test out the performance of protective clothing for use in hazardous environments.

In the video, PETMAN shows its worth as a test-body for a chemical protection suit and gas mask. Sensors embedded in PETMAN's "skin" can detect chemicals leaking through the suit. PETMAN's movements in this dress can help determine if the hazmat suit is adequately efficient in staying airtight in toxic environments. The PETMAN team provided this robot with a "micro-climate" inside the clothing.

As the video indicates, a bending, flexing, turning-side to side, and walking PETMAN represents an advanced robot with human-like, agile movements that impressively simulate how a person would move with protective clothing worn under real-life, dangerous conditions.

Adding to the robotics expertise of [Boston Dynamics](#) are other partners in development efforts. They include MRIGlobal, Measurement Technology Northwest, Smith Carter, CUH2A, and HHI.

The PETMAN robot has funding from the Department of Defense CBD program, which stands for Chemical and Biological Defense. The (CBD) program was established by the Department of Defense (DoD) is to provide capabilities for the military forces to carry out missions in chemical and biological warfare environments.

© 2013 Phys.org

Citation: PETMAN stress-tests clothes for hazardous environments (w/ video) (2013, April 7) retrieved 20 March 2024 from <https://phys.org/news/2013-04-petman-stress-tests-hazardous->

[environments.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.