

# Taekwondo simulator may kick it to UK athletes ahead of Olympics

September 1 2013, by Nancy Owano

---



Virtual reality simulators could help to push more British athletes to the winner's circle in major world events. BAE Systems, known more for products and services for defense, aerospace and security, not sports teams, is working on technology to help athletes perfect their game. As part of the plan, BAE's engineers are applying what they know for the so-called Road to Rio, helping athletes to prepare for the 2016 games in Brazil. BAE is collaborating with UK Sport and this month the firm said it will continue as UK Sport's research partner in the run-up to the next Olympic Games in Brazil. The move will give summer and winter sports

athletes access to cutting-edge technology. UK Sport announced the two were partnering and leveraging the smarts of 18,000 engineers for technology that can improve medal-winning chances both at future Olympics and Paralympics.

One center of BAE input is a simulator, involving technologies such as depth-sensing cameras, [motion sensors](#) and eye-gaze trackers to produce the virtual foes that can battle against real athletes in the Taekwondo Olympic team, for training purposes. The Taekwondo athletes by working out with their virtual opponents could develop new skills while reducing the risk of injury through repetitive impact. Different types of display for simulator training sessions are being considered. One of those would be a full [holodeck](#) in which the user is surrounded by projected imagery. The real fighter's every move will be captured and recorded for post-training analysis.

Beyond Taekwondo, BAE Systems has applied knowledge of aerospace technology to help create a "revolutionary" racing wheel for UK Paralympic wheelchair-racing athletes. The goal has been to improve the UK racers' acceleration capabilities. The new racing wheel can improve acceleration by up to 20 per cent. The new wheel was developed at BAE Systems' research center in Bristol. The wheelchairs are expected to be ready for use in competition next year, the researchers said.

Commenting on BAE Systems, Minister for Sport Hugh Robertson said, "The difference between success and failure in sport can often come down to the smallest of margins. The [cutting edge technology](#) from BAE Systems contributed to British athletes' incredible success in the run-up to and during the London 2012 Olympic and Paralympic Games. I am pleased that BAE Systems' partnership with UK Sport will continue to support our best athletes, with Sochi and Rio on the horizon."

**More information:** [www.theguardian.com/football/2 ... and-penalty-shootout](http://www.theguardian.com/football/2...and-penalty-shootout)

© 2013 Phys.org

Citation: Taekwondo simulator may kick it to UK athletes ahead of Olympics (2013, September 1) retrieved 12 May 2024 from <https://phys.org/news/2013-09-taekwondo-simulator-uk-athletes-olympics.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.