

DARPA sets aside \$7 million for 'Avatar' robot pals in battle

February 18 2012, by Nancy Owano



(PhysOrg.com) -- The Defense Advanced Research Projects Agency (DARPA) announced this week that it will be setting aside \$7 million out of its \$2 billion budget to work on a next-step robotics program called Avatar. Beyond battlefield robots built [like big dogs](#), and beyond a headless robot called [Petman](#), the Avatar result will be a "semi-autonomous bi-pedal machine" that can smartly and effectively behave as a soldier surrogate. DARPA's Avatar robots will be able to perform human-like military operations such as room clearing, sentry control and recovering combat casualties, tasks that may help minimize injuries and deaths.

Details, however, were not available at the time of this writing on how the soldiers and advanced surrogate robots will interact. As the report says, the Avatar program "will develop interfaces and algorithms to

enable a [soldier](#) to effectively partner with a semi-autonomous bi-pedal machine and allow it to act as the soldier's surrogate." [DARPA](#) has described the project with phrases noting "key advancements in telepresence and remote operation of a ground system."

The words *telepresence* and *remote operation* promptly triggered numerous conjectures in blog posts that the advanced robots may get to interact with soldiers at a distance. As expressed in *ExtremeTech*, a battle scenario using an Avatar robot would amount to a "bipedal [robot](#) drone where the controlling soldier is hundreds or thousands of miles away from war front."

The *Daily Mail* would find it no surprise if these are robots operating under mind [control](#). "The agency has reportedly already funded successful attempts to control robots with thought. The initiative seems like the next logical step in the U.S. military's robotics and remote warfare research."

DARPA says its origins go back to 1958, the agency mission being "to prevent strategic surprise from negatively impacting U.S. national security and create strategic surprise for U.S. adversaries by maintaining the technological superiority of the U.S. military." DARPA's research in robotics, however, in a global perspective, is among research efforts by other nations toward discovering what is possible in robotics for battle. Other nations also seek ways to place less human risk on their troops through robotics. Israel's Giora Katz, vice president of Rafael Advanced Defense Systems, has said that "We are moving into the robotic era." Reports say over 40 countries have military-robotics programs.

Those who fear technology's limitations rather than strengths, though, see a grim side to an initiative such as [Avatar](#). Reacting to the DARPA news, a comment on *Slashdot* said, "Power and bandwidth constraints aside, what could go wrong? Chinese hackers swooping in and

commandeering one's army? Gives new meaning to the question
‘Where's Waldo?’”

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Citation: DARPA sets aside \$7 million for 'Avatar' robot pals in battle (2012, February 18)
retrieved 29 April 2024 from

<https://phys.org/news/2012-02-darpa-million-avatar-robot-pals.html>

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