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## Teaching Robots to Fear

**Researchers seek to make gadgets fear their owners in periods of high-stress.**

by [Scott Lowe](#) READ MY BLOG

**March 17, 2009** - Violence and electronics don't exactly go well together, but when frustrations are high and device performance is low, you can't help but get a little abusive with your gadgets and gizmos. But our days of emotionally satisfying abuse may be over; as we've seen with recent developments in the field of robotics, our electronics are becoming more and more autonomous with each passing day, and a recent project by researchers at the University of Calgary now seeks to turn all of your gadgets into covering babies...or at least your Roomba.

The group released a paper earlier this week entitled "Using Bio-electrical Signals to Influence the Social Behaviors of Domesticated Robots," wherein they detailed their experiments with using headband sensors to influence the habits of a Roomba robot vacuum cleaner. The researchers used a headband sensor to detect muscle tension, which was then used to determine the user's mood.

The mood of the user would then be transferred to the Roomba, which would alter its habits according to the emotional information received from the user. If the user exhibited a state of high-tension or frustration, the Roomba would continue in its cleaning functions but avoid the user. The paper goes on to suggest that the technology could pave the way for intelligent robots, capable of approaching users who exhibit signs of sadness or depression. We don't know about you, but we don't see how a Roomba humping our feet could possibly cheer us up after a rough day at the office, or a heated argument with a friend.

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Oh yeah the robot apocalypse is getting closer and closer . . .

**Posted by:** [shimododragon](#) on March 18, 2009 16:04 PDT

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"We don't know about you, but we don't see how a Roomba humping our feet could possibly cheer us up after a rough day at the office, or a heated argument with a friend."

a roomba humping my foot may cheer me up for a few minutes with a small chuckle or knee slap... then ill... [\[+\] Full Comment](#)

**Posted by:** [tennismith](#) on March 18, 2009 15:10 PDT

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Fear is the first step to hate. AI makes me more nervous than anything else; mostly because it's not really science fiction so much anymore.

Seriously, though, if they wanted to go the Matrix/Terminator/Dune/etc. route of rebellious AI, the first step is to make robots fear their... [\[+\] Full Comment](#)

**Posted by:** [LightWarriorK](#) on March 18, 2009 05:15 PDT

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lol precarious\_chiken this has nothing to do with video game AI. AI in video games is MUCH easier to do since your in a virtual enviroment. Plus what your saying has been and already perfected in video games as thats extremely easy.

Anyway why this is different from video games is... [\[+\] Full Comment](#)

**Posted by:** [SkyNet1121](#) on March 17, 2009 21:49 PDT

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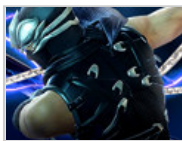
i dont know about you guys but i like it when my roomba humps my feet

but on a morre serious note this is some cool stuff wonder if it could do anything for video games like your AI npc's come to help you if your dying to much

Posted by: [precarious\\_chiken](#) on March 17, 2009 19:19 PDT

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