

## **NeuroSky lets gamers use their brains**

June 19 2010, by Glenn Chapman



Neurosky's Manager of Tactical Deployment Johnny Liu presents "Neuroboy" at the 2010 E3 Expo in Los Angeles, on June 16. The player controls the game with his mind.

NeuroSky wants gamers to start using their brains. The start-up that specializes in technology to measure brainwaves was at the Electronic Entertainment Expo here this week showing videogame titans how they can go beyond motion-sensing controls to tap into the power of the mind.

"We can simulate 'The Force' in a game and you can bend things or lift things by thinking," NeuroSky chief executive Stanley Yang said, referring to telepathic powers used by Jedi knights in "Star Wars" films and books.

"For games with magic or sorcery or where The Force is the star, if you



use your brain or thoughts it is more magical."

Nintendo pioneered motion-sensing controllers with the launch of Wii consoles in 2006, and Microsoft and Sony showcased variations on the theme with Kinect and Move for their respective consoles at the recently ended E3.

NeuroSky believes that the trend toward going beyond button-and-toggle controls to letting players use body motion or natural gestures has made the videogame industry receptive to the notion of adding mind power commands.

The company was founded by a cadre of scientists about five years ago in the Silicon Valley city of San Jose.

NeuroSky bills itself as the world leader in bringing bio-sensor technology to the consumer market with products including a Mattel Mindflex toy and a Force Trainer game.

"Our focus this year is on gaming," said NeuroSky marketing vice president David Westendorf. "From the smallest of developers all the way to the biggest console and software companies."

NeuroSky demonstrated a headset with a single sensor that presses against a player's forehead to read <u>brain waves</u>. The sensor measures how intensely a player is concentrating or how relaxed they are as well as eye blinks.

Those signals are translated into on-screen commands in videogames. For example, an AFP correspondent lifted a virtual car by relaxing then set it ablaze by focusing attention on it in a "Neuroboy" demonstration game.



"It is like willing it to explode," said NeuroSky manager Johnny Liu. "Like I am filling it up with Chi. It is very precise."

<u>Videogame</u> makers could use feedback regarding how relaxed players are to reward them with better accuracy for "steady hands" in shooter games, according to Westendorf.

"How it gets woven into the gaming experience is where the creativity comes into play," Westendorf said. "It adds a dimension in the same way Move, <u>Wii</u> and Kinect have brought the body into it we are bringing the brain into it."

NeuroSky makes its money by selling "everything from the chips that process the data to finished headsets."

Executives from the firm said they connected with an array of game software and hardware makers at E3 but would not disclose details.

"If you look at all the technology invented so far by humans, all the gadgets we have require the human to conform to the technology," Yang said, referring to typing, toggles, buttons, switches and dials.

"The vision is to use bio-sensors to have the machines conform to humans."

Yang envisioned a day five to 10 years from now when bio-sensors tell machines how we are feeling and what we want.

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