

All eyes on new writing device for the disabled

July 26 2012



Piéplu Thomas, a 41 year old man with a neurodegenerative disease works in 2006 using a computer with a camera following the movements of his eyes. A French researcher has built a device allowing disabled people to write or draw on a computer screen using only their eyes, a report said.

A French researcher has built a device allowing disabled people to write or draw on a computer screen using only their eyes, a report said Thursday.

With head-mounted cameras monitoring their eye movements, test subjects were able to write and draw on a blank computer screen in the latest breakthrough for people trapped in immobility by disease or accident.

"For persons deprived of [limb movement](#), this offers a fast, creative and

personal means of linguistic and [emotional expression](#)," said the report by Jean Lorenceau of France's CNRS research institute.

Lorenceau's system, still just a prototype, compensates for saccadic, or jumpy, [eye movements](#) to allow a smooth writing style.

After four half-hour training sessions, his subjects were able to write at a rate of about 25 letters per minute.

Similar systems exist, but none that allow a person to trace their own letters with this level of precision.

In July, engineers said they had built a device using mass-produced video gaming equipment that lets disabled people control a [computer cursor](#) with just their eyes -- with a price tag of under \$30 (25 euros).

Other technologies require electrode implants in the brain, an expensive procedure.

Such technology offers hope for restoring some level of independence to people suffering from multiple sclerosis, Parkinson's disease, muscular dystrophy and [spinal cord injuries](#) or amputees.

In the EU alone, there were more than 16 million people with disabilities who would benefit from such a system, an earlier study had found.

(c) 2012 AFP

Citation: All eyes on new writing device for the disabled (2012, July 26) retrieved 28 April 2024 from <https://medicalxpress.com/news/2012-07-eyes-device-disabled.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.