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By: Bogdan Botezatu, Hardware Editor

The new mind-reading device will be mostly used by persons with disabilities
Elanso

Russia Builds Mind-Controlled Computer

The device is primarily aimed at people with disabilities

Russian researchers with the Southern Federal University are working on a mind-control headset that would allow human users to interact with their computers using the power of thought. The project secured $750,000 in funds and will unfold in an 18-month timeframe. The research is conducted by a team of Rostov engineers and their mates in Taganrog and Saint Petersburg and aims at delivering a fully-functional device that will change computing as we know it today. Early sketches unveil that the sensor-equipped headset will intercept the brain signals (probably alpha waves, although details are scarce) that would get decoded into computer-understandable electric signals. The "mental helmet" is rigged with extremely sensitive electrodes and will work in conjunction with a custom-built piece of software.According to the researchers, the device is primarily aimed at computer users with certain impairments rather than at the high-end gaming industry. For instance, people with movement disabilities will be able to write and send e-mails and even use the instant messaging services available worldwide.More than that, a person with severe disabilities will be able to communicate with the others via a display-based system. For example, they could perform basic tasks, such as pointing to pictures suggesting drinks or food. The use of such a helmet is not limited only to the computer world: according to Boris Vladimirskiy, a scientist with the Research Institute of Neurocybernetics, impaired users will be able to drive their wheel-chairs using the mere power of thought.Vladimirskiy also said that the user will be able to control the computer by clearly imagining the physical actions one would make to move the cursor on the screen.At the moment there are a couple of such devices already available on the market, including **OCZ's Neural Impulse Actuator**, **Emotiv's Brain-to-Computer Interface** or Hitachi's **mind-reading medical helmet**.