Fully Implantable Wireless Brain-Machine Interface Announced

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Neural implants that read the electrical activity of the brain are no longer the work of fiction, improving over the years in their ability to gather ever larger amount of signals and being able to more effectively process them. Some serious practical limitations have continued to exist, primarily because the implants had to be wired to external computers for data transmission and to receive current that powers them. Now a team from Brown University, working with help from the folks at BrainGate, has developed a fully implantable sensor that both shares its readings and recharges wirelessly. In the latest Journal of Neural Engineering, the researchers have reported that the new device has been successfully working in three pigs and three macaque monkeys for over a year.

The implant works off of less than 100 milliwatts of electricity and can be recharged in two hours for a six hour run time. It was tested using single 100 electrode arrays, but has the capability of working with larger signal sources. It's being presented this week at the 2013 International Workshop on Clinical Brain-Machine Interface Systems in Houston.

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[1] http://www.medgadget.com/2013/02/brown-brain-sensor.html