Brain Machine Interfaces

A brain-machine interface (BMI) is a hardware and software communications system that permits computers or external devices to control neural activity or vice versa. Developing such neuro-prosthetic devices involves the collaborative efforts of computer engineers, neuroscientists, surgeons, etc.

What is (Epi) Retinal Prosthesis?

Retinal prosthesis systems are designed to restore vision to people blinded by incurable photoreceptor degeneration. The system electrically stimulates the Retinal Ganglion cells to transmit artificial visual signals to the brain.

Experimental Methods

Isolated macaque monkey retinas and custom 512-electrode array system for stimulation and recording are used. For each stimulation electrode, multiple stimulation amplitudes are used and the responses are recorded.

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