Games of the Future: Brainwave-controlled Devices

Dascalu, Stefan
Coca, Octavian

Electrical activity that the human brain produces is directly correlated with the task an individual is performing. This activity can be recorded with electrodes, giving us an electroencephalography. By harnessing brainwaves with an EEG-like device, one can use them to control different gadgets, machines, toys etc. in real time, depending on how hard the user concentrates. Our project consists in a circuit of toy cars whose speed is dictated by the level of attention at that given time. Through the use of similar devices we can train our ability to induce ourselves a state of attention, which is very useful in daily tasks that require a high state of concentration. Another usage could be in managing with psychological afflictions such as the Attention Deficit Hyperactivity Disorder (ADHD). This condition is a major socio-psychological problem that has a high presence in children and can also persist throughout adulthood. Most of the adults develop ways to cope with ADHD, this being a result of the great “flexibility” our brain presents. If devices like our own were to be used by children suffering from this condition, these “coping mechanisms” could be enhanced, thus helping the individuals affected. The attractive way in which this unconventional treatment (toys) is presented to children is a subject of interest in future studies.

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