APPLICATIONS

Brain Computer Interfaces (BCI) using EEG is currently a growing field of study with numerous potential applications. BCI allows signals from the brain to control a computer or electronic device. BCI has a multitude of motor control medical applications including, but not limited to: thought-controlled prosthetics, stroke rehabilitation, passive spellers, which would allow people with limited motor control to write using only their thoughts. Additionally, there are various safety applications. For example, mental state monitoring could allow a car to implement emergency breaking as soon as the thought enters the driver's brain instead of waiting for the driver's motor response. Moreover, BCI can detect lapses in concentration of tired operators, and even provided needed breaks from repetitive or time-consuming tasks. BCI's can also be used for fun things such as, gaming, virtual reality, and flying remote control helicopters using continuous three-dimensional control. Our project is of a smaller magnitude, but executes the same hardware and software concepts of these more complicated and ethically profound applications.

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