The Amazing MYO

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The electrical devices used in this day and age are plentiful and useful, however there are only a select few ways to interface with these devices. While for some, the tiny buttons on tiny screens may not be a problem, for others it may be. Those with mild to severe muscle problems won't have equal access to the devices we take for granted. A potential solution for this is the use of a medical technique called electromyography, which allows for medical professionals to interface directly with the muscle. This project's goal is to explore the potential for electromyography to be used to control their devices in never before seen ways. This will be tested by seeing if the created device can detect the movement of a finger twitch and use that information to operate a simple device, from a distance. My hypothesis is that such a device is indeed possible. In conclusion, the device was a success. The MYO module was able to operate a television by simply twitching a finger from a distance away. And by using a neural network, trained for by an individuals gestures, complex yet tailored gestures can be detected. This shows that it is indeed possible to control devices in ways that could make technology more inclusive, utilizing electromyography. This project serves as a proof of concept for many tailored controlled devices in the future.

Awards Won: