Project Name: Neuromend

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Neuromend is a project focused on researching the possibility of using virtual environments in conjunction with various natural user interfaces for the rehabilitation of stroke patients.

In the event of a stroke, blood flow to the brain is interrupted, at times resulting in loss of motor control. Researchers have found that the induced use damaged areas of the brain may eventually lead to the brain rewiring and repairing itself.

To help invoke the use of those areas of the brain, the Oculus Rift virtual reality head mounted display will be used to help immerse the user in the virtual environment. In combination, the user will use other input devices including the Microsoft Kinect, Leap Motion, and Razer Hydra to complete specific tasks designed to exercise particular motions.

This current stage of the project is to determine which devices may work better for certain tasks, and to observe user response to the overall system for future improvement. In the long term the project hopes to possibly become a practical solution in the field of stroke patient rehabilitation.