

S.W.I.L.T

SWILT, which stands for Signing With Immersive Learning Techniques, is a supplemental learning tool that combines a software and hardware component to create an outlet for a user to learn American Sign Language in a new and engaging way. The software is developed to take input data from a previously-existing hardware component (the Leap Motion), use system logic to interpret the input, and provide feedback based upon this interpretation. In practice, this system will allow for a user to practice American Sign Language and know if their gesture was performed properly and in the correct context.

A user will be able to navigate through lessons of the custom curriculum, experiencing questions whose responses require either a simple mouse input or for the user to perform the gesture above the Leap Motion so that SWILT can check the accuracy of his gesture. The curriculum is designed to be immersive-- an environment is created so that the user is able to learn American Sign Language with minimal instruction.

It is estimated that SWILT, if fully developed, will be sold at a price that is ~19% of the average cost to take an American Sign Language course in the New York City area. Currently, there is no technology that serves as an American Sign Language teaching tool, so SWILT's only market competition would be the current teaching methods, self instruction and classroom instruction. Team SWILT's goals include developing a fully-functioning prototype by the Senior Design Expo and exploring opportunities to patent and potentially oversee future stages of development.