TEXAS STATE UNIVERSITY
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Eye Movement Biometrics in Virtual and Augmented Reality

Challenge:

To attain a heretofore-unreached level of security by devising novel methods for liveness detection and for resisting coercion attacks while improving biometric accuracy in VR/AR.

Solution:

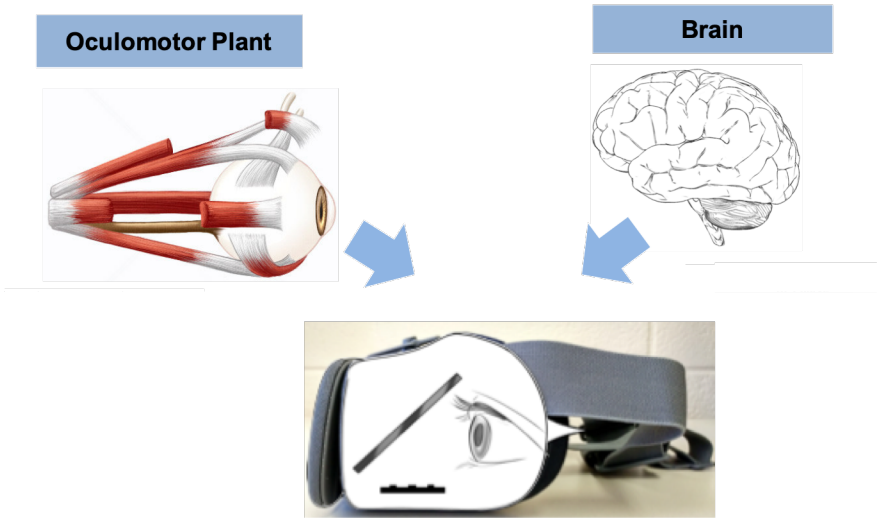
- Investigate the applicability of eye movement biometrics as a primary identity recognition method on VR/AR platforms.

Broader Impacts:

- Advances security on the future VR/AR platforms
- Provides a foundation for assessment of user state in VR/AR
- Involves minorities in research
- Published conference papers and two demos at several institutions including South by Southwest Festival (SXSW) and Eye Tracking Research and Applications Symposium (ETRA)

Scientific Impact:

- Researched solution will provide a biometric method that will be accurate and almost impossible to spoof.
- Research will provide the assessment of individuality, variability, scalability, and longevity of eye movement traits.
- Understanding of accuracy and spoof resistance provided by eye movement traits.



Project # CNS-1714623, Texas State University.
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