Comparison of AR with Novel 2D Image Guidance Methods

Both IGS VR headsets and 2D displays have been found to be effective methods of guiding tools during surgical procedures. Though both prove useful, VR can be expensive and complex, and 2D displays can be too simple for specific surgeries. This project will develop platforms to compare these 2 methods for various surgical tasks.

What Students Will Do:
Configure existing code from VR and 2D IGS methods from recently published papers and perform pilot studies.

Deliverables:
• Minimum: Update and customize AR display and 2D display IGS code
• Standard: Minimum + extended guidance ideas/functionality
• Ideal: Standard + pilot studies using both methods for static drill positioning tasks

Size group: 2-3
Skills: C++, C#, Visual Marker Tracking
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