vMemo
Construction Management Simplified

AUGMENTED REALITY VIEW
- Shows Virtual Memos with respect to the Real World
- Supports Creating, Deleting, and Editing Memos
- Memos contain Textual and Graphical Information
- Mini-Map Component for Concurrent Motion Tracking

THE PROBLEM
Construction workers have on-site walkthroughs to find and resolve construction flaws. A site can have thousands of these flaws, and currently there is no efficient solution for finding these points of interest quickly and reliably.

MAP VIEW
- Shows the User Position and Direction on the schematic
- Highly accurate Motion Tracking (within a foot)
- Support for both Calibration and Scaling interaction
- Multiple views: Top-Down, Third-Person, First-Person

SYSTEM ARCHITECTURE

OUR SOLUTION
We built an Android app that runs on the Google Project Tango tablet. This is an experimental tablet which supports motion tracking, area learning, and depth perception. The app has two views, a map view that displays the current user’s location, and an augmented reality view which displays where flaws are with markers/memos.

TECHNOLOGIES
- Android
- Project Tango
- Java
- Kajawal
- OpenGL

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