Title: VR Shooter: A Mobile Virtual Reality Shooting Game using GoogleVR SDK

Authors: Lido, Kevin R., Restauro, Leny A., Sodoysody, Darwin A.

ABSTRACT

It's now easy to experience virtual reality games, especially with the aid of smartphones and virtual reality headsets. Smartphones have embedded motion sensors: accelerometer, magnetometer and gyroscope, that makes mobile VR possible. By using Sensor Fusion, the data collected by each sensor will be combined and filtered to provide an accurate result on motion tracking. Accurate head-movement tracking is important in achieving an immersive virtual reality game. This study will tackle the implementation of sensor fusion on mobile virtual reality development. As a result of this study, the proponents created a mobile VR shooting game named VR Shooter.

Keywords: 3DOF, Accelerometer, Magnetometer, Gyroscope, Sensor Fusion, Virtual Reality, VR headset