A 3-D display system and construction method based on MEMS acceleration and geomagnetic sensor

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Abstract: The paper constructed a 3-D display system which comprised of a ball-like controller, wireless transmitter/receiver, screen and software in host com puter. The hard-core of ball-like controller consists of a tri-axial MEMS geomagnetic sensor MXR9500G (2) and a tri-axial MEMS acceleration sensor MMC3120MG (3) afforded by MEMSIC, Inc. in Wuxi, Jiangsu. With the system, when you rotate the ball-like controller, the same action will be reflected in Google Earth in the screen. What's more, if you pat the ball-like controller, the earth in the screen will zoom in, so that you can browse more details. And it'll zoom out when you shake the controller forcibly. With these functions, the system can display rich and colorful information on exhibition as well as geography teaching aids. © 2009 IEEE.

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