SCOOT 3 CBN Melbourne

Prototype Report – Installation Works, May 2 2006

Your name: Tom Killen and Dean Loades

Name of Work and One Line Description

Ghost Scanner: An augmented reality game where players must capture a number of ghosts located in a room that are only visible via a special scanner than can see into the ghost dimension.

Contributors and Roles:

Thomas Killen: Concept design and general programming
Dean Loades: 3D animation and general programming

Basic Sequence of Events (list)

Player walks into the room and finds the ghost scanner.
Picks up the ghost scanner and is challenged to find the various ghosts located in the room.
Player views room through the scanners screen and sees a ghost
Player "grabs" the ghost using the scanner and deposits the ghost in an AR "ghost trap"
Repeat until all ghosts in the room have been captured.
If the player successfully locates all of the ghosts within the time frame, the player wins, otherwise the player is considered to have lost.
If the player wins, a either a solution word, or instructions for how to proceed are displayed.
If the player loses, the player is challenged to try again.
After indicating that the player is finished with the scanner, or after inactivity, the game begins again.

Solve Presentation

The solution word or instructions will be output to the scanner screen as text with a button for the player to indicate that they have read the solution.

Physical Space Required (include **diagrams -** floor/wall/ceiling)

An area within a room that has walls within five meters of the scanner. Ideally, the room will have some other activities or exhibits (not necessarily Scoot related) nearby so that there is human activity which can be viewed via the ghost scanner to increase the impact of the AR technology. Controlled lighting is required. An open space would be possible, but lighting may become an issue.

Minimum Specifications for Installation Machine (exclude peripherals)

Windows XP, Pentium 4 > 2Ghz,
256Mb RAM
500Mb Hard Drive (including windows installation, drivers, and this program)
128Mb Video card

Applications / Drivers / Codecs Required for Installation Machine

Drivers required for the camera, these will be dependant on the specific camera used
OpenGL
The ARToolkit libraries

Materials and Construction Required (include blueprints and machine peripherals)

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A camera with USB2.0 connection (a good webcam would suffice), a button to act as a trigger for the scanner wired to produce keyboard input to the system, and a small screen attached to the scanner.

It is desired to construct the scanner as a single gun-type unit with the camera at the front, the screen towards the back, and a button in the trigger position. Ideally, the unit would be allowed to move around the room freely although since a connection must be made by all components to the computer via wires this may not be feasible. A reasonable alternative would be to mount the unit on a pole and enable to user to rotate the camera horizontally and have some ability to pan up and down.
Specific designs of the unit will be based on which of the two proposed set ups is most feasible.

New Visual/Audio Assets

3D models of a Scoot Ghost with several animation sequences.
Several AR patterns which will be detected by the system
A number of false patterns that will not be used by the system, but to disguise the real patterns as decorations.

Team Visual/Audio Assets

General aesthetic music played during the game and whilst the system is idle
Sound effects when a ghost is grabbed by the scanner, when the ghost is deposited in the ghost trap, and general sound effects that can be emitted by the ghosts during the game.

Technical Equipment Required

Do not complete. Admin only.

Media Requirements

Do not complete. Admin only.

Candidate Node/Clue

Do not complete. Admin only.

Budget Implications

Do not complete. Admin only.

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