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(71) Applicant (for all designated States except US): **MICROSOFT CORPORATION** [US/US]; One Microsoft Way, Redmond, Washington 98052-6399 (US).

(72) Inventors: **LATTA, Stephen, G**; One Microsoft Way, Redmond, Washington 98052-6399 (US). **GEISNER, Kevin**; One Microsoft Way, Redmond, Washington 98052-6399 (US). **MARKOVIC, Relja**; One Microsoft Way, Redmond, Washington 98052-6399 (US). **BENNETT, Darren, Alexander**; One Microsoft Way, Redmond, Washington 98052-6399 (US). **TOMLIN, Arthur, Charles**; One Microsoft Way, Redmond, Washington 98052-6399 (US).

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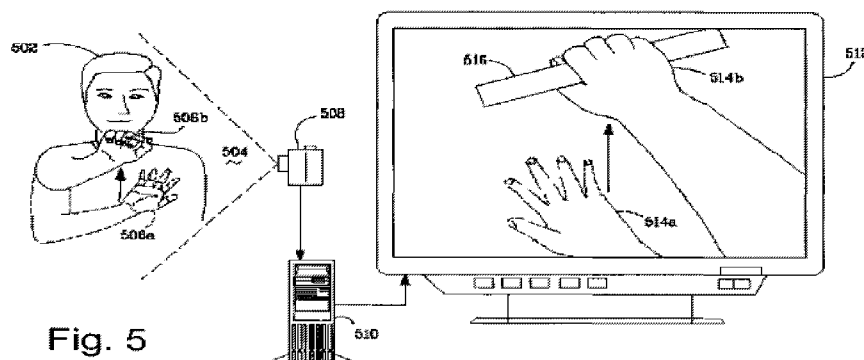


Fig. 5

(57) Abstract: Systems, methods and computer readable media are disclosed for manipulating virtual objects. A user may utilize a controller, such as his hand, in physical space to associate with a cursor in a virtual environment. As the user manipulates the controller in physical space, this is captured by a depth camera. The image data from the depth camera is parsed to determine how the controller is manipulated, and a corresponding manipulation of the cursor is performed in virtual space. Where the cursor interacts with a virtual object in the virtual space, that virtual object is manipulated by the cursor.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2010/025932**A. CLASSIFICATION OF SUBJECT MATTER****G06F 3/03(2006.01)i, G06F 3/048(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G06F 3/03; G06F 3/033; A63F 13/02; G06F 17/00; A63F 9/24

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: virtual, space, gesture, avatar, recognition

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2009-0027337 A1 (HILDRETH EVAN) 29 January 2009 See the abstract, Figs.1-4, [0006]-[0007], [0035]-[0058] and claims 1-29.	1-8, 14
Y	See Figs.9-10, [0104]-[0112].	9-13
A	US 2008-0280660 A1 (UESHIMA HIROMU et al.) 13 November 2008 See the abstract, Figs.1-2, [0031]-[0037].	1-8, 14
Y	See Figs. 13-14, [0076]-[0078] and claims 15-26.	9-13
A	US 2007-0298882 A1 (RICHARD L. MARKS et al.) 27 December 2007 See the abstract, Figs.1B, 9, 13A, [0028], [0047]-[0050], [0065].	1-14
A	US 2006-0205463 A1 (KENICHI IMAEDA et al.) 14 September 2006 See the abstract, Figs.14, 17-19, [0171]-[0172], [0176]-[0183].	1-14
A	US 2007-0021207 A1 (NED AHDOOT) 25 January 2007 See the abstract, Figs.1-3, [0029]-[0037] and claims 1-10.	1-14

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Authorized officer

LEE, Jung Ho

Telephone No. 82-42-481-5704



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