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Watanabe

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(54) **VIRTUAL IMAGE DISPLAY PROGRAM,
VIRTUAL IMAGE DISPLAY APPARATUS,
AND VIRTUAL IMAGE DISPLAY METHOD**

(58) **Field of Classification Search**

CPC A63F 13/26
See application file for complete search history.

(71) Applicant: **GREE, Inc.**, Tokyo (JP)

(56) **References Cited**

(72) Inventor: **Masashi Watanabe**, Tokyo (JP)

U.S. PATENT DOCUMENTS

(73) Assignee: **GREE, Inc.**, Tokyo (JP)

7,722,465 B2* 5/2010 Sumi A63F 13/04
463/31
2013/0274016 A1* 10/2013 Gagner G07F 17/3211
463/34

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 347 days.

(Continued)

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FOREIGN PATENT DOCUMENTS

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JP 07-200162 A 8/1995
JP 2005038008 A 2/2005
JP 2013083731 A 5/2013

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OTHER PUBLICATIONS

(30) **Foreign Application Priority Data**

Sep. 16, 2015 (JP) 2015-183379

“Social Virtual Reality”, GREE Channel, Published on Sep. 9, 2015, Accessed on Jun. 28, 2016, URL: <https://www.youtube.com/watch?v=E9hqxgk3Gn0>; 2 pgs.

(Continued)

(51) **Int. Cl.**

A63F 13/26 (2014.01)
G06F 3/01 (2006.01)
G06T 19/00 (2011.01)
A63F 13/211 (2014.01)
G06F 9/451 (2018.01)
G06F 3/0484 (2013.01)
A63F 13/428 (2014.01)

Primary Examiner — Jason Skaarup

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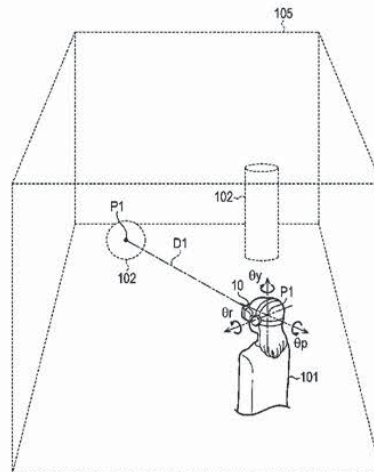
(52) **U.S. Cl.**

CPC **A63F 13/26** (2014.09); **A63F 13/211** (2014.09); **A63F 13/428** (2014.09); **G06F 3/011** (2013.01); **G06F 3/013** (2013.01); **G06F 3/017** (2013.01); **G06F 3/04842** (2013.01); **G06F 9/453** (2018.02); **G06T 19/006** (2013.01); **A63F 2300/8082** (2013.01)

(57) **ABSTRACT**

A game processing apparatus displays an image of virtual space on a display that displays an image by using a sensor for identifying the position and direction of a certain body part of a player and the display. A controller in the game processing apparatus displays the image of the virtual space on the display in accordance with the position and direction of the certain body part of the player, and, when an information providing condition regarding the position and direction of the certain body part of the player is satisfied, outputs to-be-provided information.

9 Claims, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2015/0277552	A1 *	10/2015	Wilairat	H04N 21/4884 386/244
2016/0093105	A1 *	3/2016	Rimon	G06T 19/006 345/633
2016/0259405	A1 *	9/2016	Wilson	G06F 3/012
2017/0285737	A1 *	10/2017	Khalid	G06F 3/013
2017/0315825	A1 *	11/2017	Gordon	G06F 16/24575
2018/0004285	A1 *	1/2018	Castleman	H04L 65/4069
2018/0024633	A1 *	1/2018	Lo	G06F 3/0482 345/156

OTHER PUBLICATIONS

Office Action dated May 29, 2018 of corresponding Japanese application No. JP2015-183379; 9 pgs.

* cited by examiner

FIG. 1

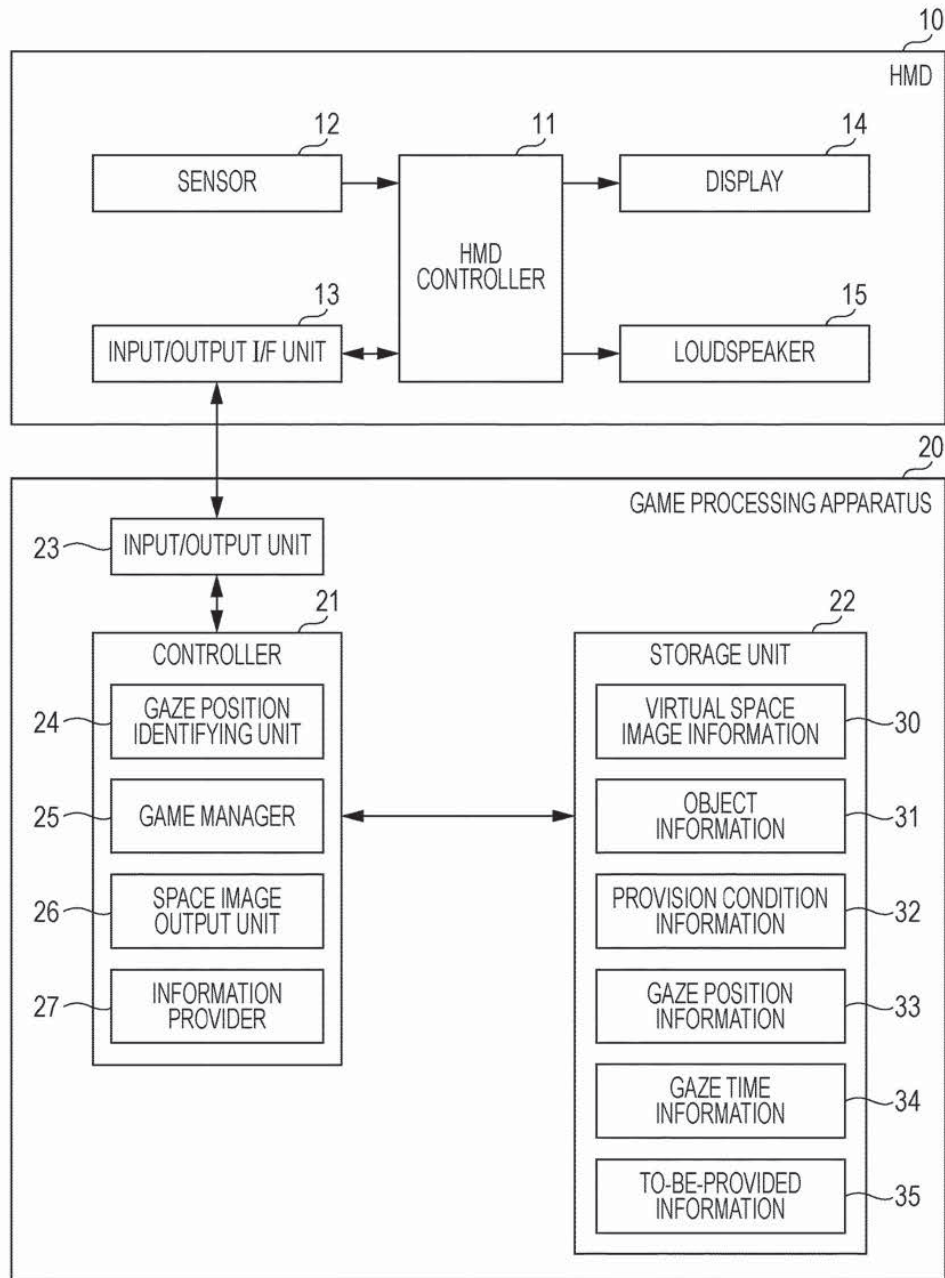


FIG. 2

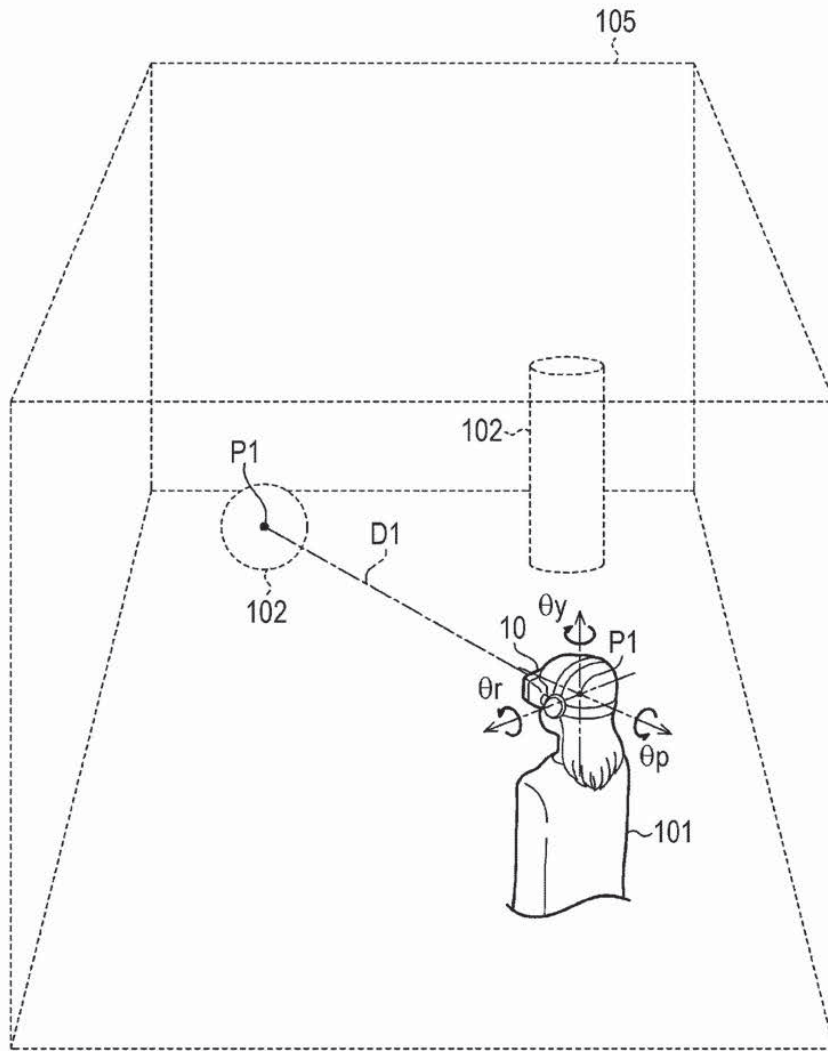


FIG. 3

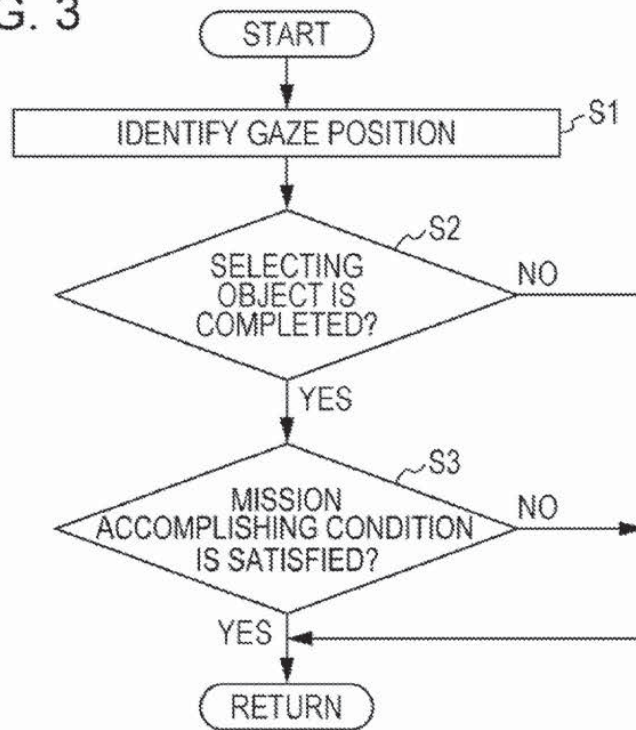
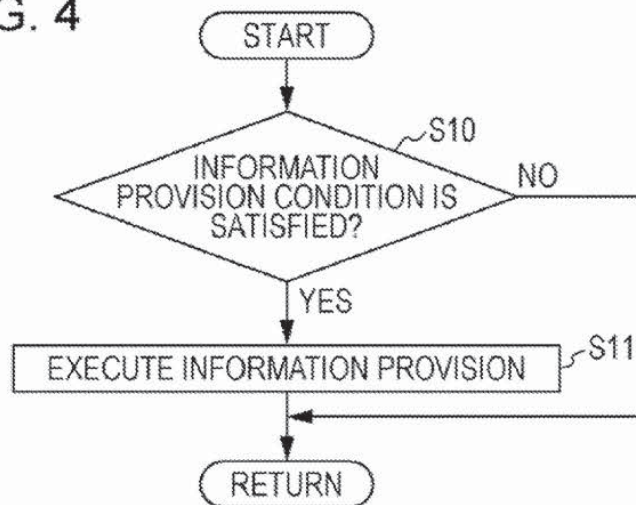


FIG. 4



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