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(54) Title: AUGMENTED RIDE SYSTEM AND METHOD

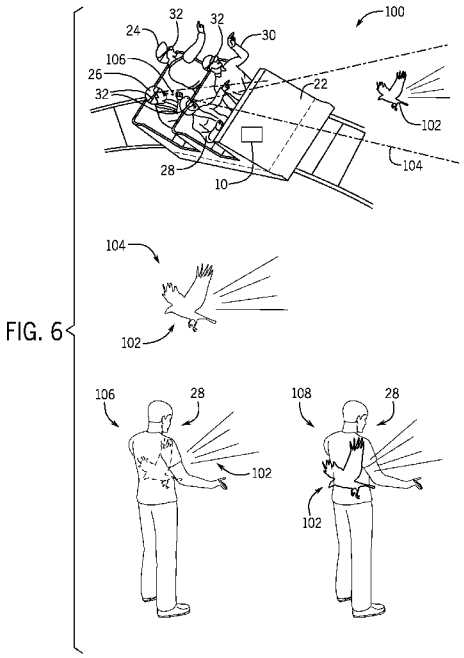


FIG. 6

(57) Abstract: A ride system includes a ride vehicle configured to accommodate a passenger and travel along a ride path during a ride in an amusement park, a head mounted display connected to the ride vehicle and configured to be worn by the passenger, and a ride and game control system integrated with the ride vehicle and configured to coordinate a ride experience of the passenger with events occurring during the ride using at least the head mounted display and the ride vehicle. The ride and game control system includes a user interface, a ride controller, and a monitoring system. The ride and game control system also includes a computer graphics generation system communicatively coupled to the head mounted display and configured to selectively generate AR features for display on the head mounted display based on data received from the ride controller, the monitoring system, the user interface, or any combination thereof.

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[Continued on next page]

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2018/021154

A. CLASSIFICATION OF SUBJECT MATTER
INV. A63F13/25 A63G7/00 A63F13/5255
ADD.

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)
A63F A63G

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2016/346704 A1 (WAGNER THOMAS [DE]) 1 December 2016 (2016-12-01) paragraphs [0034] - [0038], [0042] - [0045] -----	1-5,8, 11-16, 18,19
A	US 2013/141419 A1 (MOUNT BRIAN [US] ET AL) 6 June 2013 (2013-06-06) paragraphs [0021] - [0038]; figures 1a-1c -----	4,5
A	US 2016/196694 A1 (LINDEMAN ROBERT W [US]) 7 July 2016 (2016-07-07) paragraphs [0042] - [0044], [0054] - [0057]; figures 2c-5 -----	4,5
A	US 2014/364212 A1 (OSMAN STEVEN [US] ET AL) 11 December 2014 (2014-12-11) paragraphs [0129] - [0134]; figures 3c-3f -----	4,5
	-/--	

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
13 July 2018	18/09/2018

Name and mailing address of the ISA/	Authorized officer
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Form PCT/ISA/210 (second sheet) (April 2005)

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2011/242134 A1 (MILLER THOMAS [US] ET AL) 6 October 2011 (2011-10-06) paragraphs [0073] - [0075]; figure 5a	4,5
A	JIEJIE ZHU ET AL: "Handling occlusions in video-based augmented reality using depth information", COMPUTER ANIMATION AND VIRTUAL WORLDS, vol. 21, no. 5, 13 September 2010 (2010-09-13), pages 509-521, XP055184802, ISSN: 1546-4261, DOI: 10.1002/cav.326 pages 510,511; figures 2,12	4,5

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2018/021154

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5, 8, 11-16, 18, 19

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5, 8, 11-16, 18, 19

   A ride system with a computer graphics performing "perspective adjustments"

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2. claim: 6

   A ride system determining passenger interest for real-world feature

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3. claim: 7

   A ride system providing ID-dependent AR

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4. claims: 9, 10, 17, 20

   A ride system coupled to a show effect system

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2018/021154

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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