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- (81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) **Designated States** (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

[Continued on nextpage]

(54) **Title:** SYSTEM AND METHOD FOR TRACKING A PASSIVE WAND AND ACTUATING AN EFFECT BASED ON A DETECTED WAND PATH

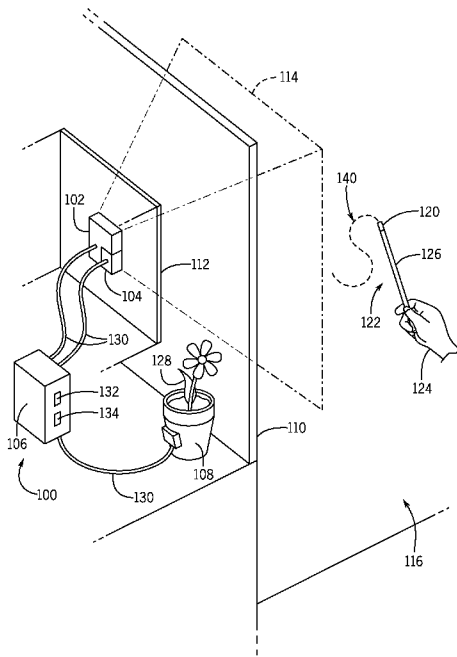


FIG. 1

(57) **Abstract:** A system 100 in accordance with present embodiments includes a source 102 of electromagnetic radiation that operates to emit electromagnetic radiation into an active playing area 116. The system 100 also includes a sensing device 104 that operates to receive the electromagnetic radiation after being reflected from a retro-reflective material 120 of an article 126 positioned in the active playing area 116 and operable to generate data based on receiving reflected electromagnetic radiation from a series 140 of article positions. Further, the system 100 includes a controller 106 that operates to process the data generated by the sensing device 104 to determine whether the series 140 of article positions correlate to a stored gesture and output a control signal to actuate an effect 108 when the series 140 of article positions correlate to the stored gesture.

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Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(H))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(Hi))*

— *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))*

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
 INV. G06F3/01 A63G31/00 G06F3/03
 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)
 G06F 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 2009/222149 A1 (MURRAY PAUL [US] ET AL) 3 September 2009 (2009-09-03) abstract; figures 1-27 paragraphs [0038] - [0052], [0076] -----	1-4, 6-8, 11, 13-21
X	US 2011/183751 A1 (UESHIMA HIROMU [JP]) 28 July 2011 (2011-07-28) abstract; figures 1-35 paragraphs [0081], [0083], [0088] - [0096], [0142], [0143], [0156] - [0172], [0197], [0198], [0245], [0263] paragraphs [0292] - [0295], [0297], [0304] ----- -/- .	1-8, 11, 13-22

Further documents are listed in the continuation of Box C.

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

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "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 29 April 2014	Date of mailing of the international search report 01/09/2014
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Kbhn, Andreas

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International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 2010/040292 A1 (CLARKSON IAN [CA]) 18 February 2010 (2010-02-18)</p> <p>abstract; figures 1A-12 paragraphs [0030], [0043] - [0051], [0056] - [0066], [0076], [0079] - [0081], [0084], [0086], [0092]</p> <p style="text-align: center;">-----</p>	<p>1-5,11, 13-17, 20,21</p>
A	<p>US 2012/262366 A1 (ZHU YANNING [US] ET AL) 18 October 2012 (2012-10-18)</p> <p>abstract; figures 1-10 paragraphs [0022], [0023], [0025], [0048] - [0055], [0061]</p> <p style="text-align: center;">-----</p>	<p>1,5,8, 15,21</p>

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2014/017817

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. :

1-8, 11, 13-22

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: 1-8, 11, 13-22

Invention 1 (claims 1-8, 11, 13-22) directed towards implementation aspects regarding a retro-reflective material, a source of electromagnetic radiation, and a gesture recognizer used in a system for tracking a passive article, the tracking system (essentially) comprising:

- (i) a source of electromagnetic radiation configured to emit electromagnetic radiation into an active playing area;
- (ii) a sensing device configured to generate data based on receiving the electromagnetic radiation after being reflected from a retro-reflective material of an article, the article being positioned at a series of article positions in the active playing area;
- (iii) a controller configured to determine whether the series of article positions correlate to a stored gesture and output a control signal to actuate an effect when the series of article positions correlate to the stored gesture; and
- (iv) characterized by at least one of: the retro-reflective material being a solid component or a coating of the article, the source of electromagnetic radiation being configured to flood the active playing area with electromagnetic radiation or to emit a series of light beams into the active playing area, and the controller being configured to modify operation of the sensing device based on light conditions in the active playing area.

2. claims: 9, 10, 12

Invention 2 (claims 9, 10, 12) directed towards application of a system for tracking a passive article to a theme park in order to increase the level of entertainment value of the theme park, the tracking system (essentially) comprising:

- (i) a source of electromagnetic radiation configured to emit electromagnetic radiation into an active playing area;
- (ii) a sensing device configured to generate data based on receiving the electromagnetic radiation after being reflected from a retro-reflective material of an article, the article being positioned at a series of article positions in the active playing area;
- (iii) a controller configured to determine whether the series of article positions correlate to a stored gesture and output a control signal to actuate an effect when the series of article positions correlate to the stored gesture; and
- (v) characterized in that the sensing device is configured to detect activity occurring in a passenger compartment of a ride vehicle.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2014/017817
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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2009222149	AI	03-09-2009	NONE

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