



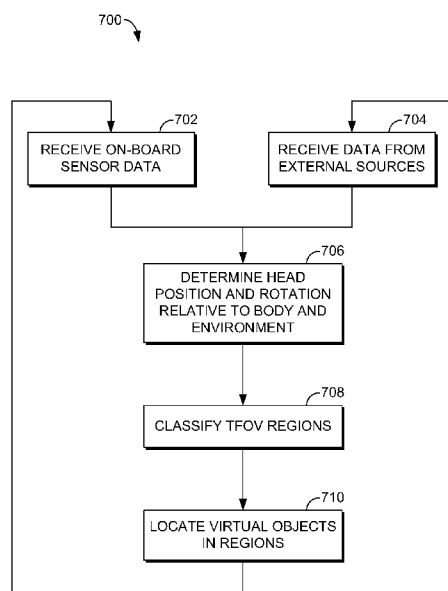
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- (81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, 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,

[Continued on next page]

- (54) **Title:** TOTAL FIELD OF VIEW CLASSIFICATION FOR HEAD-MOUNTED DISPLAY

**FIG. 7**

(57) **Abstract:** Virtual images are located for display in a head-mounted display (HMD) to provide an augmented reality view to an HMD wearer. Sensor data may be collected from on-board sensors provided on an HMD. Additionally, other data may be collected from external sources. Based on the collected sensor data and other data, the position and rotation of the HMD wearer's head relative to the HMD wearer's body and surrounding environment may be determined. After resolving the HMD wearer's head position, the HMD wearer's total field of view (TFOV) may be classified into regions. Virtual images may then be located in the classified TFOV regions to locate the virtual images relative to the HMD wearer's body and surrounding environment.



TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/043178**A. CLASSIFICATION OF SUBJECT MATTER****G02B 27/02(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)

G02B 27/02; G09F 9/00; H04N 5/232; G02B 27/01; H04N 13/04; G09G 5/00

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 modelsElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: Total Field of View (TFOV), Head Mounted Display (HMD), Augmented Reality (AR), head, position, and similar terms.**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 1999-084307 A (M R SYST KENKYUSHO:KK) 26 March 1999 See abstract and figure 4	1-10
A	WO 2006-106371 A1 (INNORACIO FEJLESZTO ES KUTATAS-HASZNOSITO KFT. et al.) 12 October 2006 See abstract and figure 3	1-10
A	JP 3701053 B2 (MINOLTA CO., LTD.) 28 September 2005 See abstract and figure 4	1-10
A	JP 2009-211049 A (RAYTHEON CO) 17 September 2009 See abstract	1-10



Further documents are listed in the continuation of Box C.



See patent family annex.

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"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

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"&" document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/US2012/043178

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