

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
14 December 2023 (14.12.2023)



(10) International Publication Number
WO 2023/239583 A1

- (51) **International Patent Classification:**
G02B 27/00 (2006.01) *G02B 27/01* (2006.01)
- (21) **International Application Number:**
PCT/US2023/024116
- (22) **International Filing Date:**
01 June 2023 (01.06.2023)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
63/350,723 09 June 2022 (09.06.2022) US
18/318,549 16 May 2023 (16.05.2023) US
- (71) **Applicant: UNIVERSAL CITY STUDIOS LLC**
[US/US]; 100 Universal City Plaza, Universal City, California 91608 (US).
- (72) **Inventors: GOERGEN, Patrick John;** 1000 Universal Studio Plaza, Orlando, Florida 32819 (US). **GRAHAM,**

Martin Evan; 1000 Universal Studio Plaza, Orlando, Florida 32819 (US).

(74) **Agent: POWELL, W. Allen et al.;** P.O. Box 692289, Houston, Texas 77269 (US).

(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, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, CV,

(54) **Title: SYSTEMS AND METHODS FOR WASHING HEAD-MOUNTED DEVICES**

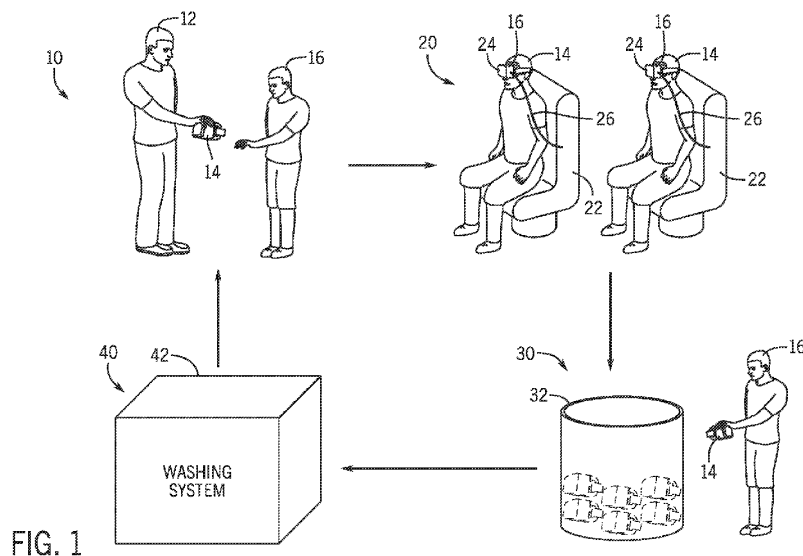


FIG. 1

(57) **Abstract:** A system for washing components of head-mounted devices may include a reader to read identification information from a plurality of interface devices that are used in conjunction with or that are components of head-mounted devices. Each interface device may include an RFID tag including respective identification information of the interface device. The system may also include a washing system. Further, the system may include a controller with a processor and a memory wherein the control may receive the identification information from the reader or wash cycle information from the washing system to determine whether the interface device has reached a threshold level of degradation.

[Continued on next page]

WO 2023/239583 A1

GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, 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, ME, 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).

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))*