

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
06 August 2020 (06.08.2020)



(10) International Publication Number
WO 2020/159433 A1

(51) International Patent Classification:

G05G 1/04 (2006.01) G05G 1/10 (2006.01)
G05G 1/08 (2006.01)

(72) Inventor: GUERRERO, Gil Jr Palma; c/o Razer (Asia-Pacific) Pte. Ltd., 514 Chai Chee Lane, #07-05, Singapore 469029 (SG).

(21) International Application Number:

PCT/SG2019/050053

(74) Agent: VIERING, JENTSCHURA & PARTNER LLP; P.O. Box 1088, Rochor Post Office, Rochor Road, Singapore 911833 (SG).

(22) International Filing Date:

31 January 2019 (31.01.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(71) Applicant: RAZER (ASIA-PACIFIC) PTE. LTD.
[SG/SG]; 514 Chai Chee Lane, #07-05, Singapore 469029 (SG).

(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, 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,

(54) Title: INDUCTIVE JOYSTICK

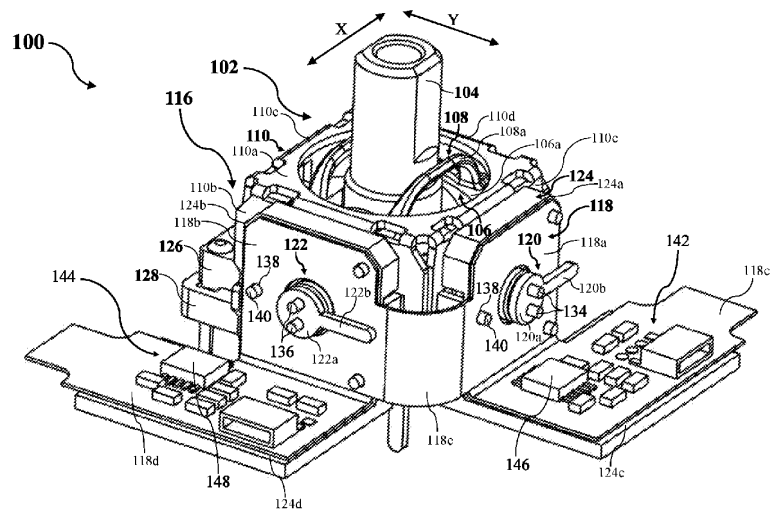


FIG. 1A

(57) Abstract: An inductive joystick may include a control structure including an elongate member movable along at least one direction substantially perpendicular to its length; and a position sensing assembly including a printed circuit board having at least one surface arranged adjacent to the control structure and at least one metal dial arranged over the at least one surface. The at least one surface may be substantially parallel with the elongate member's length and with the at least one direction, and may be provided with at least one transmitter coil and at least one receiver coil. In use, the transmitter coil(s) may induce signal(s) in the receiver coil(s) and the metal dial(s) may interfere with the induction. Moving the elongate member may cause relative movement between the surface(s) and the metal dial(s) which may vary the induced signal(s) based on a position of the metal dial(s).

[Continued on next page]

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, 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, 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).

Published:

- *with international search report (Art. 21(3))*
- *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*