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G07F 17/24 (2006.01)
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- (71) **Applicant (for all designated States except US):** **IPS GROUP INC.** [US/US]; 5601 Oberlin Drive, Suite 100, San Diego, California 92121 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** **SCHWARZ, Alexander** [US/US]; 5601 Oberlin Drive, Suite 100, San Diego, California 92121 (US). **HUNTER, Stephen John**

[ZA/US]; 5601 Oberlin Drive, Suite 100, San Diego, California 92121 (US).

- (74) **Agent:** **HALL, David A.**; KILPATRICK TOWNSEND & STOCKTON LLP, Two Embarcadero Center, 8th Floor, San Francisco, California 94111 (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, 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.

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[Continued on next page]

- (54) **Title:** LOW-POWER VEHICLE DETECTION

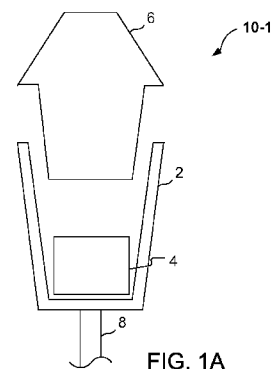


FIG. 1A

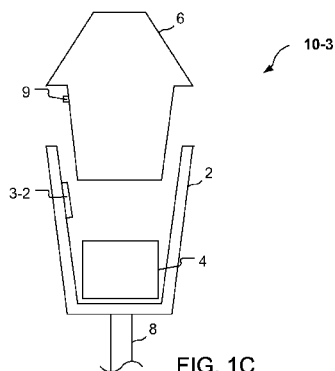


FIG. 1C

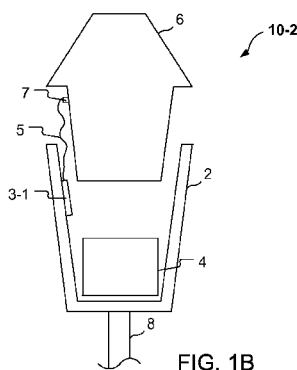


FIG. 1B

- (57) **Abstract:** A parking meter detects an object in proximity, based on a change in a proximity measurement at the meter, activates a directional sensor in response to detecting the object, receives sensor data at a meter processor from the directional sensor, wherein the received sensor data indicates a predetermined direction to the detected object relative to the meter. The parking meter determines a presence of the object, or lack thereof, in the predetermined direction based on the sensor data, and upon a positive determination of the presence of the object, stores an indication of the presence of the object along with a time of the positive determination.



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, ML, MR, NE, SN, TD, TG).

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/048190**A. CLASSIFICATION OF SUBJECT MATTER****G07B 15/02(2011.01)i, G07F 17/24(2006.01)i, G08C 17/02(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)

G07B 15/02; G08G 1/04; G08G 1/14; G08G 1/00

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 models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: parking, meter, detect, directional sensor, store

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6229455 B1 (YOST et al.) 08 May 2001 See abstract, column 1, claim 1 and figure 5.	1-9
A	US 7855661 B2 (PONERT) 21 December 2010 See abstract, claims 1-2 and figure 5.	1-9
A	WO 2009-154787 A2 (FIORUCCI et al.) 23 December 2009 See abstract, claims 1, 12 and figure 4.	1-9
A	US 2006-0267799 A1 (MENDELSON) 30 November 2006 See abstract, claim 1 and figure 1.	1-9



Further documents are listed in the continuation of Box C.



See patent family annex.

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Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

KANG Sung Chul

Telephone No. 82-42-481-8405



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 2006-0267799 A1	30.11.2006	None	