(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 1 March 2007 (01.03.2007)

(10) International Publication Number WO 2007/025267 A3

(51) International Patent Classification: *G08B 21/00* (2006.01) *H04Q 7/00* (2006.01) *G08B 1/08* (2006.01)

(21) International Application Number:

PCT/US2006/033608

(22) International Filing Date: 25 August 2006 (25.08.2006)

(25) Filing Language: English

(26) Publication Language: English

(**30**) **Priority Data:** 60/711,135 2

25 August 2005 (25.08.2005) US

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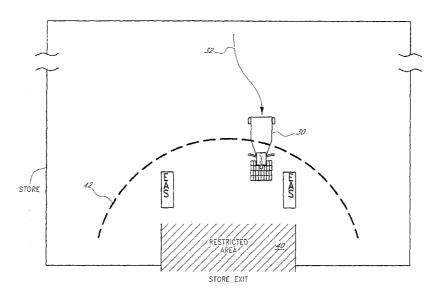
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN,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

Published:

with international search report

(88) Date of publication of the international search report: 7 May 2009

(54) Title: SYSTEMS AND METHODS FOR LOCATING AND CONTROLLING POWERED VEHICLES



(57) Abstract: A system for controlling movement of a personal mobility vehicle near a restricted region is disclosed. In one embodiment, the system includes a detector that is configured to be disposed on the personal mobility vehicle and that is configured to receive an electromagnetic signal transmitted to the restricted region. The system also includes a control unit configured to communicate with the detector. The control unit is further configured to determine proximity of the detector to the restricted region using information related to the signal received by the detector. The control unit is also configured to provide a command to inhibit movement of the personal mobility vehicle in response to the determined proximity of the vehicle to the restricted region.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/33608

A. CLAS	SSIFICATION OF SUBJECT MATTER G08B 21/00(2006.01),1/08(2006.01);H04Q 7/00(B60R 25/10(2006.01)	2006.01)			
USPC:	340/686.6,679,539.26,426.11,426.12				
According to	International Patent Classification (IPC) or to both nat	ional class	ification and IPC		
B. FIELI	OS SEARCHED				
	cumentation searched (classification system followed b	v classifica	ution symbols)		
	20/686.6, 679, 539.26, 426.11, 426.12				
Documentation	on searched other than minimum documentation to the	extent that	such documents are included in	the fields searched	
Electronic da	ta base consulted during the international search (name	of data ba	se and, where practicable, search	terms used)	
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	JMENTS CONSIDERED TO BE RELEVANT			D. 1 1 M	
Category *	Citation of document, with indication, where a			Relevant to claim No.	
X	US 5,574,469 (Hsu) 12 November 1996, Figs. 1-5, a	II pages and	1 columns are applicable	1, 5, 8, 11, 13-22, 24- 26, 28, 32-38, 41, 43, 45-47, 49, 50, 51, 54, 56, 58-60, 62-67, and 69	
X Y	US 6,784,800 B2 (Orzechowski) 31 August 2004, Fi 18-22; Fig. 3, items 55 and 57	g. 1, item 1	3; col 2, lns 1-4; col 3, lns	1, 26 10, 29, 30	
	VIC 2002/0005064 A L (T) 0 May 2002 Fig. 14-	0001	L and 0002	1, 26	
X 	US 2003/0085064 A1 (Turner) 8 May 2003, Fig. 1; p	oarags 0001	and 0003	1, 20	
Y				2, 27	
Further	documents are listed in the continuation of Box C.		See patent family annex.		
* S	pecial categories of cited documents:	"T"	later document published after the inter- date and not in conflict with the applica		
	defining the general state of the art which is not considered to be of relevance		principle or theory underlying the inven	tion	
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"P" document published prior to the international filing date but later than the priority date claimed		"&" document member of the same patent family			
Date of the actual completion of the international search		Date of mailing of the international search report 21 MAY 2008			
14 May 2008 (14.05.2008)				UO	
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US			Authorized officer		
Commissioner for Patents		/JENNIF	/JENNIFER MEHMOOD/		
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Form PCT/ISA/210 (second sheet) (April 2007)

INTERNATIONAL SEARCH REPORT

International application No. PCT/US06/33608

itegory *	* Citation of document, with indication, where appropriate, of the relevant passages		
X	US 4,242,668 (Herzog) 30 December 1980, Fig. 1; col 2, lns 24-50	1	
Y		3, 4	
X	US 6,894,614 B2 (Eckstein et al.) 17 May 2005, col 1, lns 11-30 and 55-67; col 12, lns 15-20	1, 37, 50	
Y		6, 39, 52	
x	US 6,717,511 B2 (Parker, Jr. et al.) 6 April 2004, col 2, lns 60-64; col 3, lns 37-40; col 4, lns	1, 37, 50	
Y	4-20	23, 48, 61	
X	US 6,002,348 (Greene et al.) 14 December 1999, col 2, lns 44-54; col 3, lns 11-20	1, 37, 50	
<u></u> Ү		7, 40 and 53	
Х	US 5,068,654 (Husher) 26 November 1991, col 3, lns 18-23; col 4, lns 9-15	1, 50	
Y		9, 55	
X	US 6,232,884 B1 (Gabbard) 15 May 2001, col 1, lns 10-15; col 3, lns 57-65; col 4, lns 1-8	1, 37, 62	
 Y		12, 44, 68	
X	US 6,138,912 (Mitsuno) 31 October 2000, col 6, lns 1-14 and 41-47	26	
<u></u> Ү		31	
X	US 5,949,331 (Schofield) 7 September 1999, col 10, lns 28-44,	37	
 Y	·	42	
X	US 5,586,050 (Makel et al.) 17 December 1996, col 4, lns 39-45	50	
 Ү		57	
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