#### (19) World Intellectual Property Organization

International Bureau





## (43) International Publication Date 22 July 2004 (22.07.2004)

**PCT** 

# (10) International Publication Number WO 2004/060727 A3

(51) International Patent Classification<sup>7</sup>: G08G 1/14

(21) International Application Number:

PCT/US2003/039226

(22) International Filing Date:

11 December 2003 (11.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10/320,431 17 December 2002 (17.12.2002)

(71) Applicant and

(72) Inventor: NEWCOMER, Ronald, E. [US/US]; 6417 Fairway Drive West, Fayetteville, PA 17222 (US).

(74) Agent: VENTURINO, Anthony, P.; Stevens, Davis, Miller & Mosher, LLP, 1615 L Street N.W., Suite 850, Washington, DC 20036 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

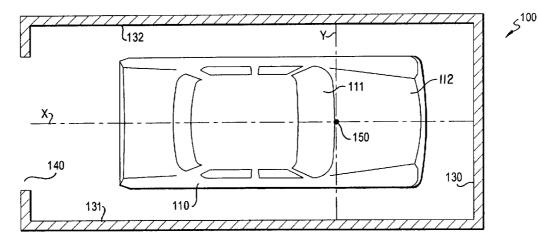
#### **Published:**

with international search report

(88) Date of publication of the international search report: 16 September 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VEHICLE POSITIONING DEVICE



(57) Abstract: A method and apparatus for guiding a vehicle into an optimal position within a parking space. A first linear ray of light is projected along the centerline of a parking space. A second linear ray of light is projected at an angle to and intersecting the first linear ray within the parking space. The first linear ray of light guides the driver while moving into and through the space when the driver aligns an indicator on the vehicle with the first linear ray of light. As the driver nears the optimal position, the second linear ray of light will move towards the indicator. When the indicator coincides with the intersection of the first and second linear rays of light, the vehicle is in the optimal position.

### INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/39226

A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) : G08G 1/14  US CL : 340/932.2  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) U.S.: 340/932.2, 555, 556, 557, 958; 250/491.1; 180/199; 399/400; 116/28R				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where a		Relevant to claim No.	
Y	US 6,218,962 B1 (FIENE) 17 April 2001, fig. 1, c	ol. 1 lines 45-67 and col. 2, lines 42-	1-19	
Y	45, col. 4, lines 24-45 US 5,773,721 A (BASHYAM) 30 June 1998, see entire document.		1-19	
Y	US 5,691,725 A (TANKA) 25 November 1997, see entire document.		7, 8, 12, 19	
A,P	US 6,531,966 B2 (KRIEGER) 11 March 2003, see entire document.		1-22	
		·		
Further documents are listed in the continuation of Box C.		See patent family annex.		
Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance  "E" and the interpret is a state of the art which is not considered to be of particular relevance.		"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		
"L" document establish	plication or patent published on or after the international filing date which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	when the document is taken alone  "Y" document of particular relevance; the	claimed invention cannot be	
specified) "O" document		considered to involve an inventive step combined with one or more other such being obvious to a person skilled in the	documents, such combination	
"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		"&" document member of the same patent family		
	ctual completion of the international search	Date of mailing of the international sear	rch report	
22 June 2004 (22.06.2004)		0 1 JUL 2004		
	ailing address of the ISA/US	Authorized officer	n	
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450		Kenneth Wieder State State Telephone No. 703-305-4700/		
	o. (703) 305-3230		° Ø	

Form PCT/ISA/210 (second sheet) (July 1998)

INTERNATIONAL SEARCH REPORT	
Continuation of B. FIELDS SEARCHED Item 3: USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB mirror near laser	

PCT/US03/39226

Form PCT/ISA/210 (second sheet) (July 1998)