

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

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
27 December 2002 (27.12.2002)

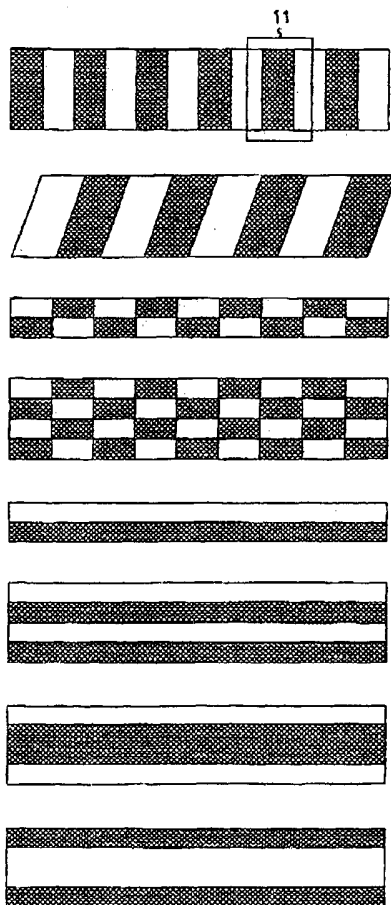
PCT

(10) International Publication Number  
WO 02/103649 A3

- (51) International Patent Classification<sup>7</sup>: **G08B 13/194** Columbia Road, Morristown, NJ 07962 (US). **COFER, Darren, D.**; 101 Columbia Road, Morristown, NJ 01962 (US).
- (21) International Application Number: PCT/US02/01120
- (22) International Filing Date: 18 January 2002 (18.01.2002) (74) Agents: **CRISS, Roger, H.** et al.; Honeywell International Inc., 101 Columbia Road, P.O. Box 2245, Morristown, NJ 07960 (US).
- (25) Filing Language: English
- (26) Publication Language: English (81) Designated States (*national*): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, 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, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (30) Priority Data:  
60/262,925 19 January 2001 (19.01.2001) US  
Not furnished 18 January 2002 (18.01.2002) US
- (71) Applicant: **HONEYWELL INTERNATIONAL INC.** [US/US]; 101 Columbia Avenue, P.O. Box 2245, Morristown, NJ 07960 (US).
- (72) Inventors: **HAMZA, Rida, M.**; 101 Columbia Road, Morristown, NJ 07962 (US). **GIERCZAK, Marek**; 101
- (84) Designated States (*regional*): ARIPO patent (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, CH, CY, DE, DK, ES, FI, FR,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR DETECTING OBJECTS



(57) Abstract: An object detection system is provided that projects one or more patterns onto a monitored area, captures one or more live images of the monitored area, and detects objects that enter the monitored area by detecting changes in the one or more patterns in the live images. Such an object detection system may be less susceptible to dynamic lighting conditions, and more sensitive to object motion and/or presence.



WO 02/103649 A3



GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent  
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG).

**(88) Date of publication of the international search report:**  
3 April 2003

**Published:**

— *with international search report*

*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.*

**INTERNATIONAL SEARCH REPORT**

International Application No  
PCT/US 02/01120

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7 G08B13/194				
According to International Patent Classification (IPC) or to both national classification and IPC				
<b>B. FIELDS SEARCHED</b>				
Minimum documentation searched (classification system followed by classification symbols) IPC 7 G08B G06T G01B				
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 practical, search terms used)  EPO-Internal, INSPEC, PAJ, WPI Data				
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>				
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X  A  A	DE 198 09 210 A (SIEMENS AG) 16 September 1999 (1999-09-16) column 1, line 37 -column 2, line 15  column 5, line 15 - line 43 ---- MAKI M C ET AL: "New options in using infrared for detection, assessment and surveillance" SECURITY TECHNOLOGY, 1996. 30TH ANNUAL 1996 INTERNATIONAL CARNAHAN CONFERENCE LEXINGTON, KY, USA 2-4 OCT. 1996, NEW YORK, NY, USA,IEEE, US, 2 October 1996 (1996-10-02), pages 12-18, XP010199860 ISBN: 0-7803-3537-6 the whole document ---- -/--	1-4  11,23  1		
<table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"> <input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.                 </td> <td style="width:50%; border: none;"> <input checked="" type="checkbox"/> Patent family members are listed in annex.                 </td> </tr> </table>			<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.	<input checked="" type="checkbox"/> Patent family members are listed in annex.
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.	<input checked="" type="checkbox"/> Patent family members are listed in 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* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *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	*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 when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family			
Date of the actual completion of the international search  17 December 2002	Date of mailing of the international search report  30/12/2002			
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  De la Cruz Valera, D			

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 02/01120

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98 47117 A (KONINKL PHILIPS ELECTRONICS NV ;PHILIPS SVENSKA AB (SE)) 22 October 1998 (1998-10-22) abstract -----	6-10

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/US 02/01120

Patent document cited in search report	A	Publication date		Patent family member(s)		Publication date
DE 19809210	A	16-09-1999	DE	19809210 A1		16-09-1999
WO 9847117	A	22-10-1998	EP	0907940 A1		14-04-1999
			WO	9847117 A1		22-10-1998
			JP	2000513168 T		03-10-2000
			KR	2000016631 A		25-03-2000