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[CN/US]; 38 Unger Lane, Pittsburgh, Pennsylvania 15217 (US). **HIRVONEN, David** [US/US]; 4605 NE 13th Avenue, Portland, Oregon 97211 (US). **CAMUS, Theodore** [US/US]; 20 Kettlebrook Drive, Mount Laurel, New Jersey 08054-2630 (US).

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(74) Agent: **TONG, Kin-Wah**; 595 Shrewsbury Avenue, Shrewsbury, NJ 07702 (US).

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(71) Applicants (for all designated States except US): **SARNOFF CORPORATION** [US/US]; 201 Washington Road, Princeton, New Jersey 08543 (US). **FORD MOTOR COMPANY** [US/US]; One American Road, Dearborn, Michigan 48126 (US).

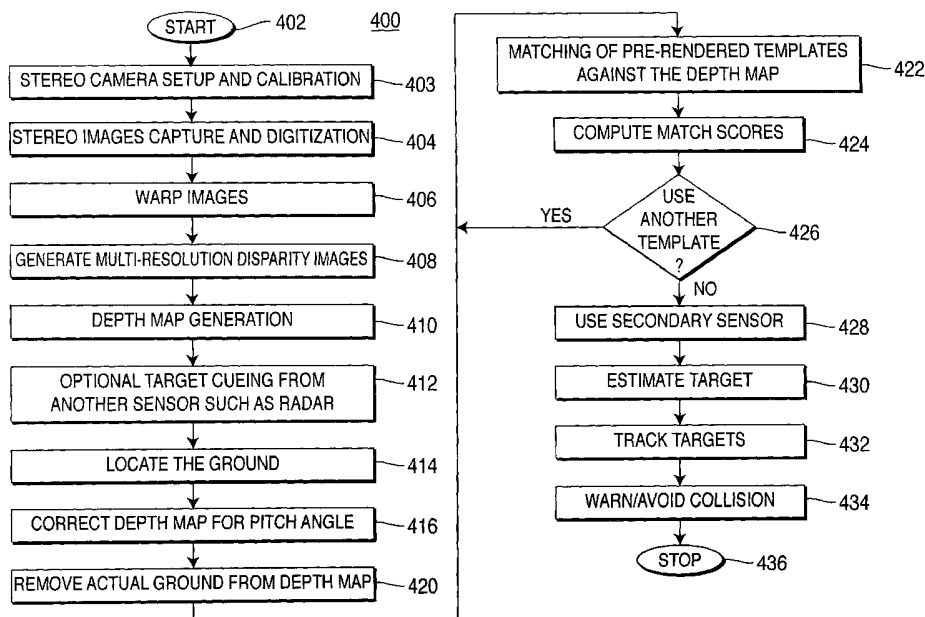
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(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHANG, Peng**

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR GROUND DETECTION AND REMOVAL IN VISION SYSTEMS



(57) Abstract: A vision system that forms a map of a scene proximate a platform (410), e.g., a vehicle, that determines the actual ground plane from the map (414), and that corrects the map for differences between the actual ground plane (416) and an assumed ground plane. The vision system may remove the actual ground plane from the map to prevent false positives. The vision system can further identify and classify objects and, if appropriate, take evasive action.

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A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : G06K 9/00, 9/36; G01C 5/00, 21/30; G06F 15/00, 19/00; G01V 3/00; B60Q 1/00; G08B 21/00; G08G 1/017 US CL : 382/103, 104, 106, 154, 285, 291; 356/3, 3.02, 3.08; 702/166; 340/854.1; 701/208; 348/140; 359/458 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. : Please See Continuation Sheet 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)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,526,352 B1 (BREED ET AL.) 25 February 2003 (25.02.2003), the whole document.	1-10
A	US 20020038181 A1 (OKUDE ET AL.) 28 March 2002 (28.03.2002), the whole document.	1-10
A	US 20010035836 A1 (MICELI ET AL.) 01 November 2001 (01.11.2001), the whole document.	1-10
A	US 6,169,516 B1 (WATANABE ET AL.) 02 January 2001 (02.01.2001), the whole document.	1-10
A	US 6,094,501 A (BEATTY) 25 July 2000 (25.06.2000), the whole document.	1-10
A	US 5,745,126 A (JAIN ET AL.) 28 April 1998 (28.04.1998), the whole document.	1-10
A	US 5,109,425 A (LAWTON) 28 April 1992 (28.04.1992), the whole document.	1-10
X,P	US 6,658,136 (BRUMITT) 02 December 2003 (02.12.2003), the whole document.	1-10
A	US 20030112132 A1 (TRAJKOVI ET AL.) 19 June 2003 (19.06.2003), the whole document.	1-10
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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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X,P	US 20030169906 A1 (GOKTURK ET AL.) 11 September 2003 (11.09.2003), the whole document.	1-10

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Continuation of B. FIELDS SEARCHED Item 1:

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