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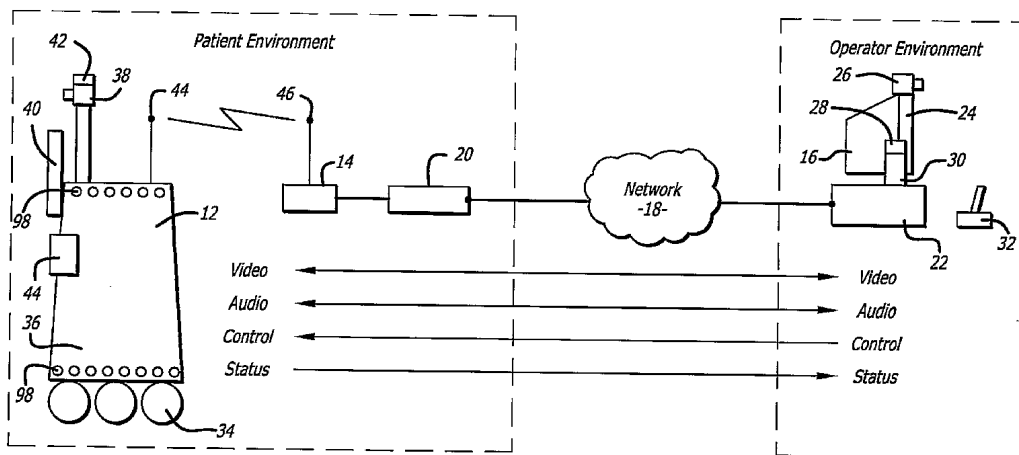


FIG. 1

(57) Abstract: A method for remotely monitoring a patient. The method includes generating and transmitting input commands to the robot (12) from a remote station (16). The remote station (16) may include a personal computer (22) that is operated by a doctor. The input commands can move the robot so that a video image and sounds of the patient can be captured by a robot camera (38) and microphone (28 and 42), respectively, and transmitted back to the remote station (16). The robot (12) may also have a monitor (40) and a speaker (30 and 44) to allow for two-way videoconferencing between the patient and a doctor at the remote station (16). The robot (12) can move from room to room so that a doctor can make "patient rounds" within a medical facility. The system thus allows a doctor visit patients from a remot location (16), thereby improving the frequency of visits and the quality of medical care.

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**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US03/23328

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC(7) : G06F 19/00  
 US CL : 700/245, 231, 259; 340/870.11  
 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. : 700/245, 231, 259; 340/870.11

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 West

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

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category * | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|------------|---|-----------------------|
| A          | US 6,036,812 A (WILLIAMS et al.) 14 March 2000 (14.03.2000), see entire document    | 1-85                  |
| A          | US 6,006,946 A (WILLIAMS et al.) 28 December 1999 (28.12.1999), see entire document | 1-85                  |
| A          | US 5,838,575 A (LION, NICHOLAS) 17 November 1998 (17.10.1998), see entire document  | 1-85                  |
| A          | US 5,762,458 A (WANG et al.) 09 June 1998 (09.06.1998), see entire document         | 1-85                  |
| A          | US 5,341,854 A (Zezulka et al.) 30 August 1994 (30.08.1994), see entire document    | 1-85                  |
| A          | US 4,471,354 A (SMITH) 11 September 1984 (11.09.1984), see entire document          | 1-85                  |

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  | "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  |
| "E" earlier application or patent published on or after the international filing date   | "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   |
| "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) | "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 |
| "O" document referring to an oral disclosure, use, exhibition or other means  | "&" | document member of the same patent family  |
| "P" document published prior to the international filing date but later than the priority date claimed  |     |  |

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| Name and mailing address of the ISA/US<br>Mail Stop PCT, Attn: ISA/US<br>Commissioner for Patents<br>P.O. Box 1450<br>Alexandria, Virginia 22313-1450<br>Facsimile No. (703) 305-3230 | Authorized officer<br><i>Thomas Black</i><br>Thomas Black<br>Telephone No. (703) 308-1113 |

**BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING**

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-20 AND 65-73, drawn to a robot system, classified in class 700, subclass 245.

Group II, claim(s) 21-23, drawn to a method for dispersing a drug to a patient classified in class 700m subclass 231.

Group III, claim(s) 24-27, drawn to a method for monitoring a patient, classified in class 340, subclass 870.11.

Group IV, claim(s) 28-64, drawn to a remote control robotic system, classified in class 700, subclass 259.

The inventions listed as Groups I to IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: These inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).