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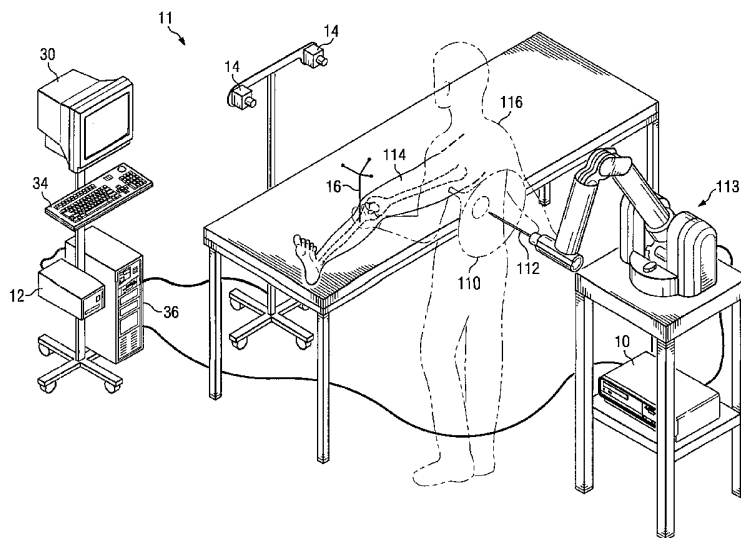
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ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: SYSTEM AND METHOD FOR USING A HAPTIC DEVICE IN COMBINATION WITH A COMPUTER-ASSISTED SURGERY SYSTEM



(57) Abstract: The use of a haptic device with a computer-assisted surgery system is disclosed. One aspect generally pertains to use of robotic devices, preferably haptic devices, as input devices, allowing information to pass from the user to a computer-assisted surgery system. In another aspect, the combination of the haptic device and the computer-assisted surgery system may be used for intra-operative haptic planning of a medical procedure. In another aspect, the combination of the haptic device and the computer-assisted surgery system may be used for haptic sculpting of physical objects. In yet another aspect, the combination of the haptic device and the computer-assisted surgery system may be used for interactive haptic positioning of the haptic device.

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/07063

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61B19/00

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)

IPC 7 A61B

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

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 02 060653 A (ACROBOT COMPANY LTD ;DAVIES BRIAN LAWRENCE (GB); JAKOPEC MATJAZ (G) 8 August 2002 (2002-08-08) page 16, line 1-10 and 25-27, page 26, line 10-12 page 9, line 9 -page 14, line 21-23; claim 1; figures 2-4	104-107, 109, 119, 120
P, X	US 2002/120188 A1 (BROCK DAVID L ET AL) 29 August 2002 (2002-08-29) paragraphs '0006!, '0016!, '0067!, '0068!, '0089!-'0091!, '0099!, '0105!-'0110!, '0119!, '0120!; figures 1, 3	104-109, 119, 120

☒ Further documents are listed in the continuation of box C.

☒ 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.

\*G\* document member of the same patent family

Date of the actual completion of the international search

5 April 2004

Date of mailing of the international search report

16/04/2004

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/07063

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 259 806 B1 (GREEN PHILIP S) 10 July 2001 (2001-07-10) column 5, line 10,26-33 -column 6, line 25-27; figures 1A, -----	104-109, 119-125
X	US 6 223 100 B1 (GREEN PHILIP S) 24 April 2001 (2001-04-24) column 11; figure 1 -----	104-109, 119-125
A	CHEN E ET AL: "FORCE FEEDBACK FOR SURGICAL SIMULATION" PROCEEDINGS OF THE IEEE, IEEE. NEW YORK, US, vol. 86, no. 3, 1 March 1998 (1998-03-01), pages 524-530, XP000778983 ISSN: 0018-9219 page 525 -----	104

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

Continuation of Box I.2

Claims Nos.: 24-47,83-103,110-118,177-198

Present claims 24-47,83-103,110-118,177-198 relate to an extremely large number of possible apparati, because of the vague wording and/or of the combination in the same claims of features describing a device and features describing a method. In fact, the claims contain so many options, variables, possible permutations and provisos that a lack of clarity (and conciseness, see below) within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. Consequently, the search has been carried out for those parts of the application which do appear to be clear, namely claims 104 to 109 and 119 to 125.

Furthermore, the large number of the claims presently on file render it difficult, if not impossible, to determine the matter for which protection is sought. Therefore, the present application fails to comply with the clarity and conciseness requirements of Article 6 PCT (see also Rule 6.1(a) PCT).

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 03/07063

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-23, 48-68, 69-77, 78-82, 126-154, 155-176  
because they relate to subject matter not required to be searched by this Authority, namely:  
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
2. ☒ Claims Nos.: 24-47, 83-103, 110-118, 177-198  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/07063

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Information on patent family members

International Application No

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