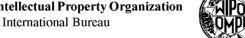
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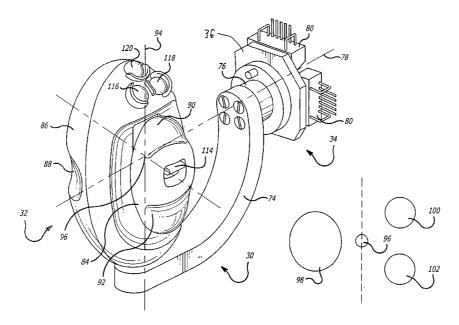
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(54) Title: MULTIFUNCTIONAL HANDLE FOR A MEDICAL ROBOTIC SYSTEM



(57) Abstract: A handle (32) used to control movement of a medical instrument (50). The medical instrument (50) may be coupled to a robotic arm (12) that is connected to a controller (22). The medical instrument may have a plurality of functions such as wrist locking (132) and motion scaling (134). One of the functions may be selected through a graphical user interface (130) operated by the end user. The handle may have a plurality of buttons (116, 118, 120). One of the buttons may allow the end user to control the selected function. For example, when wrist locking/unlocking is selected, depressing the button can toggle the medical instrument wrist between a locked state and an unlocked state.



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PCT/US02/38790

A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) : B25J 17/02  US CL : 901/29; 606/1  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.: 901/29; 606/1, 130; 600/102			
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 a		Relevant to claim No.
X  Y	US 6,233,504 B1 (DAS et al) 15 May 2001 (15.05.2001), entire document.		1-4, 6, 7, 9, 10, 12-14, 16, 17, 19-22
x	US 2001/0027312 A1 (BACHER et al) 04 October 2001 (04.10.2001), entire document.		5, 8, 11, 15, 18, 23 1, 3, 5
 Y			8, 15
Y	Y US 5,762,458 A (WANG et al) 09 June 1998 (09.06.1998), col 4.		11, 18, 23
A	A US 4,854,301A (NAKAJIMA) 08 August 1989 (08.08.1989), entire document.		1-23
A US 6,179,829 B1 (BISCH et al) 30 January 2001 (30.01.2		0.01.2001), entire document.	1-23
A, P	US 2002/0120252 A1(BROCK et al) 29 August 2002	2 (29.08.2002), entire document.	1-23
Further	documents are listed in the continuation of Box C.	See patent family annex.	
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