

shown in order to convert, with the control electronics, the read-out encoder signals into a corresponding image display.

[0058] It is clear that various changes and modifications can be made to the device and to the proposed method, without thereby departing from the scope of the present invention as set forth in the attached patent claims.

LIST OF REFERENCE NUMBERS

[0059]	1 chair
[0060]	2 robot support
[0061]	3 counterweight
[0062]	4 patient
[0063]	5 patient's upper arm
[0064]	6 patient's forearm
[0065]	7 patient's hand
[0066]	8 wrist cuff
[0067]	9 forearm cuff
[0068]	10 upper arm cuff
[0069]	11 linear drive
[0070]	12 jib
[0071]	13 upper supporting connection
[0072]	14 supporting connection
[0073]	15 lower supporting connection
[0074]	16 outer half-cylinder of upper arm rotation module
[0075]	17 inner half-cylinder of upper arm rotation module
[0076]	18 connecting rail—upper arm to elbow
[0077]	19 connecting rail—elbow to forearm
[0078]	20 outer half-cylinder of forearm rotation module
[0079]	21 inner half-cylinder of forearm rotation module
[0080]	22 half-cylinder of elbow rotation module near upper arm
[0081]	23 half-cylinder of elbow rotation module near wrist
[0082]	25 drive module with first drive
[0083]	26 second drive
[0084]	27 6-DOF force sensor
[0085]	28 torque sensor of third axis
[0086]	29 third drive
[0087]	30 encoder of third axis
[0088]	31 encoder of fourth axis
[0089]	32 fourth drive
[0090]	33 torque sensor of fourth axis
[0091]	34 encoder of fifth axis
[0092]	35 fifth drive
[0093]	36 torque sensor of fifth axis
[0094]	37 further torque sensor of fifth axis
[0095]	38 opening
[0096]	39 eyelet
[0097]	41 motor-side outer wall of upper arm rotation module
[0098]	42 side wall of upper arm rotation module
[0099]	43 distal outer wall of upper arm rotation module
[0100]	44 cable drive flange
[0101]	45 first drive cable
[0102]	46 second drive cable
[0103]	47 third drive cable
[0104]	48 inner ball bearing
[0105]	49 outer ball bearing
[0106]	50 lateral ball bearing
[0107]	51 anchor point
[0108]	52 side slit

1-11. (canceled)

12. A system for arm therapy of a user, comprising:
 a device determining the position of the user;
 a first drive capable of being fixedly connected to the device determining the position of the user;
 an upper arm rotation module having an inner part and an outer part;
 an upper arm cuff secured on the inner part of the upper arm rotation module;
 at least one hinge movably connecting the upper arm cuff and the first drive;
 a second drive capable of being articulated on the outer part of the upper arm rotation module; and,
 a rotation drive being provided on the upper arm rotation module itself,
 wherein the upper arm cuff is connected to the arm of the user,
 wherein the upper arm cuff has a substantially hollow-cylindrical shape when closed,
 wherein the first drive and the second drive are adapted to place the upper arm rotation module in a defined spatial position, and
 wherein the rotation drive is adapted to turn the upper arm cuff about its main axis relative to the outer part of the upper arm rotation module.

13. The system as claimed in claim 12, further comprising control electronics connected with the first drive, the second drive and the rotation drive, the control electronics being adapted to generate control signals for the first and second drives to place the upper arm rotation module in a spatially defined position and to generate additional control signals for the rotation drive to turn the upper arm cuff about its main axis relative to the outer part of the upper arm rotation module.

14. The system as claimed in claim 12, further comprising:
 first connecting elements of the inner part of the upper arm rotation module secured to the upper arm cuff;
 an elbow cuff;
 an elbow rotation module having a part near the upper arm of a user and a part which is near the wrist of a user; and
 a hinge adjustably connecting the part near the upper arm and the part near the wrist to one another,
 wherein the first connecting elements secure the upper arm rotation module to the part of the elbow rotation module near the upper arm,
 wherein the part of the elbow rotation module which is near the upper arm is connected to the elbow cuff, and
 wherein the axis of the hinge coincides with the elbow axis of an inserted arm of a user.

15. The system as claimed in claim 14, wherein a further rotation drive is provided to drive the hinge axis.

16. The system as claimed in claim 15, comprising control electronics connected with the first drive, the second drive, the rotation drive and the further rotation drive, the control electronics being adapted to generate control signals for the first and second drives to place the upper arm rotation module in a spatially defined position, to generate additional control signals for the rotation drive to turn the upper arm cuff about its main axis relative to the outer part of the upper arm rotation module and to generate further additional control signals for the further rotation drive on the elbow rotation module to turn the elbow cuff transverse to its main axis relative to the axis of the upper arm rotation module.