

S5. Description of the orthoses' physical characteristics of inserted articles.

Author (s)	User Intent Modality (sensors type)	Limb assisted	Total DOF	N° Ind. Actuators	Actuators types	Actuators input force	Actuators ext. torque/grip force	Power transmission
Delijorge et al., 2020	EEG sensor	Hand fingers	2	5	DC linear motor	-	-	Exoskeleton
Ren et al., 2019	sEMG and IMU	Shoulder and elbow	8	3	Servo motor	-	- Shoulder F: 4.785 Nm/ 1.937 Nm . - Shoulder E: 6.852 Nm/ 2.373 Nm .	Exoskeleton
Ha, Kim and Jo, 2018	Leap motion sensor and pressure sensor	5 hand fingers	2	5	Pneumatic	The PWM generated for driving the PNBA actuator was used to operate from 0 kPa to 89.63 kPa. considering actuator bending motion	-	Soft robotic
Wang et al., 2018	sEMG	Shoulder, elbow and wrist	3, being 1 passive and 2 actives	3	DC motors	-	- I = 0:079kgm ² . - Kv = 1.213N.s/rad.	End-effector

Zeng et al., 2018	sEMG sensor	Hand fingers	It has one DOF for F and E. As for the mechanism of the thumb, it has two DOFs for thumb rotation.	6		Microlinear	30 N	-	Cable-driven
Khan A, Khan F, Han, 2016	Load cells	Forearm and shoulder	3, being 2 active and 1 passive	2		DC motor	-	- Shoulder: 45 Nm; - Elbow: 25 Nm	-
Agarwal, Fernandez and Deshpande, 2015	Magneto-resistive angle sensor	5 hand fingers	2	5		Bowden-cable -based series elastic	-	- MCP: from 0.1N to -0.1N, approximately. - PIP: from 0.05N to -0.05N	Exoskeleton
ng et al., 2015	Sensors not specified to measuring the level of force	5 hand fingers	2	5		-	-	-20 to 20N	Exoskeleton
Khan et al., 2015	MCS and load cells	Shoulder and elbow	7, being 2 actives and 5 passives	-		-	-	- Shoulder: 45 Nm . - Elbow: 25 Nm	Exoskeleton
Ramirez, Alfaro and Chairez, 2015	sEMG	5 hand fingers	2	6		DC motors	-	-	Cable-driven
Kavya et al., 2015	sEMG sensor	Hand and forearm	4	-		Servo motor	-	-	-
Chen and Lau, 2015	Not specified, but kinematic analysis was done	Shoulder, elbow and wrist	5	5		DC servo motor	-	-	Rigid link

Loconsole et al., 2014	sEMG and 3-axis force sensors	Shoulder, elbow and wrist	5	4	-	-	-	Exoskeleton
Tang et al., 2014	sEMG	Elbow	2	2	Pneumatic	0.6 MPa	-	Carbon fiber bracer, metal link and nylon joint
Seki et al., 2011	sEMG	Elbow	2	1	DC motor	-	-	Exoskeleton
Zhang and Nakamura, 2006	EOG	Shoulder and elbow	5, being 3 active and 2 passive	2	Servo motor	0.5N	8N	End-effector

Abbreviations: DOF = Degree of Freedom; E = Extension; EEG = electroencephalography; EOG = Electrooculogram; F = Flexion; IMU = Inertial Measurement Unit; MCS = Muscle Circumference Sensor; MCP = Metacarpophalangeal; MPa= Megapascal; PNBA = Pneumatic Networks Bending Actuator; PWM = Pulse with Modulation; sEMG = Surface Electromyography; - = Not informed.