

Electronic Supplementary Materials

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Anthropomorphic hand based on twisted-strand-driven da Vinci's mechanism is approaching human dexterity and power of grasp

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Table S1 Performance of human's and robot's hand

Hand	Fingertip Force (N)	Velocity (°/s)	Mass (g)	Thickness (mm)	Number of actuators	Number of passive DOF	Is commercial
Human	15.3 ⁽¹⁾	200 ⁽²⁾	400 ⁽²⁾	28	35	24 ⁽³⁾	False
Xhand_0.4mm	14.7	233	280	29	6	15	False
Xhand_0.6mm	8.3	142	280	29	6	15	False
Xhand_1.0mm	6.4	107	280	29	6	15	False
iLimb	7.66 ⁽²⁾	95.3 ⁽²⁾	465 ⁽²⁾	45 ⁽²⁾	5 ⁽²⁾	6 ⁽²⁾	True
Bebionic	12.47 ⁽²⁾	45.8 ⁽²⁾	539 ⁽²⁾	50 ⁽²⁾	5 ⁽²⁾	6 ⁽²⁾	True
Vincent	4.82 ⁽²⁾	103.3 ⁽²⁾	380 ⁽⁴⁾	28 [*]	6 ⁽²⁾	6 ⁽²⁾	True
Different superscripts indicate the different data sources No superscript means the data is experimentally measured or counted (i) indicates the data comes from the corresponding reference * indicates the data is estimated based on images and videos							

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