## Biomecanica

### Yang et al 2020

Yang, X., Lim, Z., Jung, H., Hong, Y., Zhang, M., Park, D., & You, H. (2020). Estimation of finite finger joint centers of rotation using 3D hand skeleton motions reconstructed from CT scans. *Applied Sciences*, *10*(24), 9129.

* “Digital human hand models have been widely used in ergonomic product design and evaluation”
* “the assumption that the hand is a rigid linkage system,”
* “metacarpophalangeal (MCP), proximal interphalangeal (PIP), and distal interphalangeal (DIP) joints “

### Chen chen et al 2011

Chen Chen, F., Favetto, A., Mousavi, M., Ambrosio, E., Appendino, S., Manfredi, D., ... & Bona, B. (2011, July). Human Hand: Kinematics, Statics, and Dynamics. In *41st International Conference on Environmental Systems* (p. 5249).

* “Sections 4 to 6 present data about forces, torque, velocities and power”
* “The human hand is composed of…”

### Kargov et al 2004

Kargov, A., Pylatiuk, C., Martin, J., Schulz, S., & Döderlein, L. (2004). A comparison of the grip force distribution in natural hands and in prosthetic hands. *Disability and Rehabilitation*, *26*(12), 705-711.

* “Comparison of grip in natural and prosthetic hands …”

### Fourie 2017

Fourie, R., & Stopforth, R. (2017). *The mechanical design of a biologically inspired prosthetic hand, the touch hand 3* (pp. 38-43). IEEE.

* “1.1.1.8 Finger and hand antropometry data: …”

## RCM

### Sun et al 2017

Sun, J., Yan, Z., & Du, Z. (2017, June). Optimal design of a novel remote center-of-motion mechanism for minimally invasive surgical robot. In *IOP conference series: earth and environmental science* (Vol. 69, No. 1, p. 012097). IOP Publishing.

### Zhang et al 2019, 2014

Zhang, F., Lin, L., Yang, L., & Fu, Y. (2019). Design of an active and passive control system of hand exoskeleton for rehabilitation. *Applied Sciences*, *9*(11), 2291.

* “the SPRM and the parallel mechanism, which can realize the telecentric motion around the joint center

## Estados del Arte

### Noronha et al 2021

Noronha, B., & Accoto, D. (2021). Exoskeletal devices for hand assistance and rehabilitation: A comprehensive analysis of state-of-the-art technologies. *IEEE Transactions on Medical Robotics and Bionics*, *3*(2), 525-538.

### Rosen et al 2019

Rosen, J. (Ed.). (2019). *Wearable robotics: Systems and applications*. Academic Press.

## Requerimientos

### Boser et al 2020

Boser, Q. A., Dawson, M. R., Schofield, J. S., Dziwenko, G. Y., & Hebert, J. S. (2020). Defining the design requirements for an assistive powered hand exoskeleton: A pilot explorative interview study and case series. *Prosthetics and Orthotics International*, 0309364620963943.

### Randazzo et al 2017

Randazzo, L., Iturrate, I., Perdikis, S., & Millán, J. D. R. (2017). mano: A wearable hand exoskeleton for activities of daily living and neurorehabilitation. *IEEE Robotics and Automation Letters*, *3*(1), 500-507.

* “they still suffer from an important limitation: their adoption by users on a daily basis is limited because of complexity, poor usability and high costs.”
* “we aimed at developing a device intensively usable in ADL, both for assistive and neurorehabilitative purposes”
* “tendon-driven mechanisms. These designs enable the self-alignment of the exoskeletal structure(s)”
* “natural somatosensation”
* “Table 1: Comparison of the mano device (first row) to state-of-the-art hand exoskeletons.”

### Bützer et al 2021 (RELab tenoexo)

Bützer, T., Lambercy, O., Arata, J., & Gassert, R. (2021). Fully wearable actuated soft exoskeleton for grasping assistance in everyday activities. *Soft robotics*, *8*(2), 128-143.