Comments and Corrections

Corrections to "Patient-Specific, Voice-Controlled, Robotic FLEXotendon Glove-II System for Spinal Cord Injury"

Phillip Tran ⓘ, Seokhwan Jeong ⓘ, Steven L. Wolf, and Jaydev P. Desai ⓘ, *Fellow, IEEE*

For joint angle computation, only the data from the EM trackers placed on each phalange of the fingers was used and the data from the EM tracker placed on the back of the hand was not used. Fig. 9 and Fig. 11(a)–(b) in [1] should be replaced with Fig. 1 and Fig. 2(a)–(b) respectively.
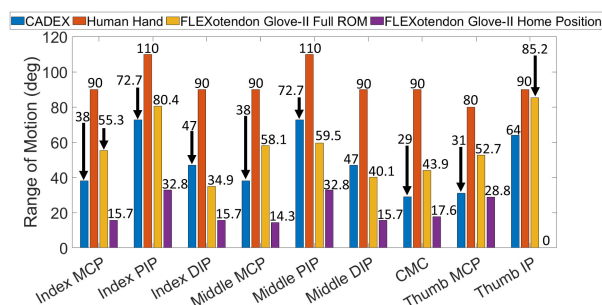

Fig. 1. Individual joint range-of-motion of the FLEXotendon Glove-II, CADEX glove, and the human hand. MCP-metacarpophalangeal, PIP-proximal interphalangeal, DIP-distal interphalangeal, CMC-carpometacarpal.

Fig. 2. Fingertip trajectory of the participant while picking up a block: (a) Without assistance, and (b) With the FLEXotendon Glove-II.

In Fig. 1, the dominant angular motion as recorded by the EM trackers were averaged across trials and the angular motion corresponding to the non-dominant motions as recorded by the EM trackers were ignored.

In Fig. 2(a)–(b) in this correction document and Fig. 12 in [1], the 2 trials conducted for picking up the block and measuring the pinch force respectively, correspond to 1 trial for unassisted motion and 1 trial for assisted motion. The joint angles in Fig. 2(a)–(b) correspond to the sum of the domi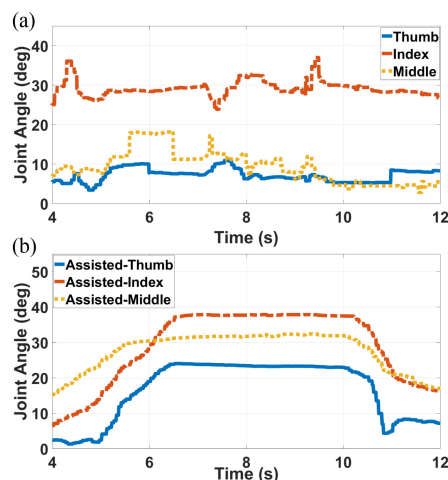nant angular motion in each finger as recorded by the EM trackers and the angular motion corresponding to the non-dominant motions as recorded by the EM trackers were ignored.

The data presented in Fig. 14(a)–(b) in [1] was averaged over 3 trials.

REFERENCE

[1] P. Tran, S. Jeong, S. L. Wolf, and J. P. Desai, "Patient-Specific, Voice-Controlled, Robotic FLEXotendon Glove-II System for Spinal Cord Injury," *IEEE Robot. Automat. Lett.*, vol. 5, no. 2, pp. 898–905, Apr. 2020.