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Robot Hand Mimics Human Hand, Types 20 Words-Per-Minute

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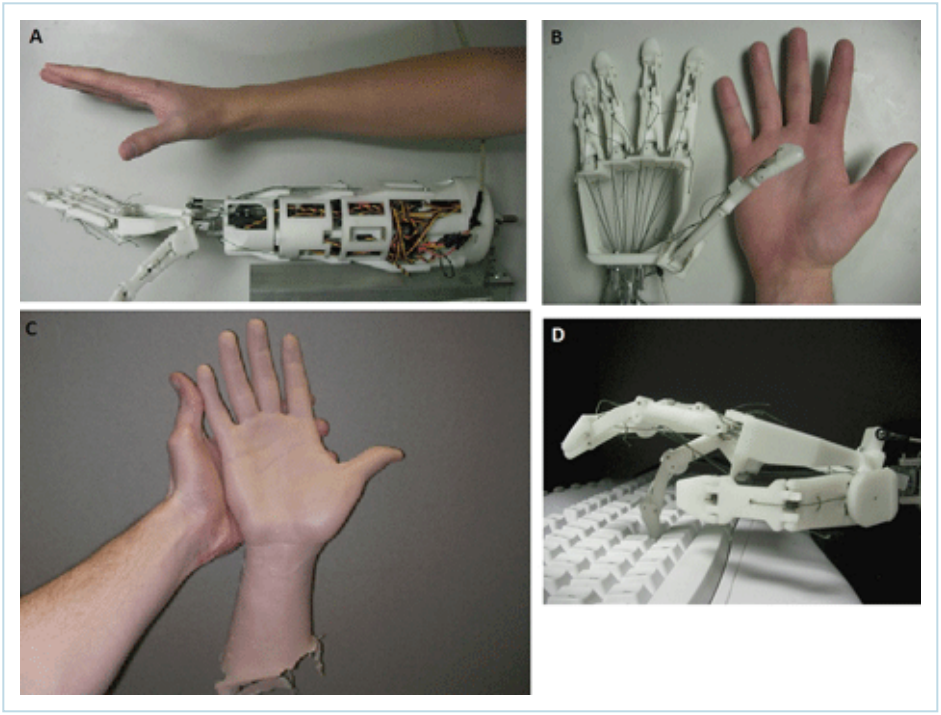

Researchers from Virginia Tech in Blacksburg, Virginia, have created a robotic hand that mimics the human hand in both appearance and performance. Their hand is called a dexterous anthropomorphic robotic typing hand, or DART, and is primarily designed to type on a computer keyboard like humans do. Each finger has four joints and three degrees of freedom while the thumb has an additional degree of freedom for manipulating small objects. It has 16 servo motors for finger motion and three motors for wrist motion. They are located in the forearm and connecting wires (the “tendons”) run down to their insertion points in the hand. The hand types at a rate of 20 words per minute, where the average human achieves 33 words per minute with two hands. It also knows how to correct itself using the delete or backspace key when it makes a typo. Future plans are to add all kinds of sensors, silicon and force-feedback. We would also be interested to see two of these working together to beat a human typist, but there is no word about that yet. The study was recently published in the journal *Smart Materials and Structures*.

More: Robotic hand nearly identical to a human one...
Article abstract: Design and implementation of a dexterous anthropomorphic robotic typing (DART) hand...

Wouter Stomp

Wouter Stomp is a radiology resident at the radiology department of Leiden University Medical Center, the Netherlands. He is also a PhD candidate with his research focussing on the role of MRI in early rheumatoid arthritis.