# A calibrated database of kinematics and EMG of the forearm and hand during activities of daily living

*File name = s41597-019-0285-1.pdf*

Synchronized database of 7 EMG sensor and hand gesture using 18 DOF of the hand

Statistical verifiction of the experiment to show that it is close to real life condition

Weaknesses of most dataset that synchronize EMG and hand gesture (that this article tries to solve)

* Recorded movement do not represent real life applications
* Motion capture system not reliable
* Type of kinematic data represeneted (raw kinematic instead of anatomitac angles
* Emg electrodes locations not clear

ADL = activities of daily living

Cyberglove

8-channel sEMG, 1000Hz sampling

7 spots for sEMG that are the most representatives of the right forearm (represent all available muscle activity of the whole forearm

Performed gesture are set to mimic real life movement (handle the door, pour water, type on keyboard…) -> 26 ADL

* Start each time in the same position
* Reference posture (close fist) considered as the zero for all angles

Synchronisation done offline

Filter on all values

Statistical verification of the quality of the data

# Electromyography data for non-invasive naturally-controlled robotic hand prostheses

*File name = sdata201453.pdf*

Uses delsys trigno

Evaluation of the effect of experimental conditions

Does feature classification

# Continuous and simultaneous estimation of finger kinematics using inputs from an EMG-to-muscle activation model

*File name = 1743-0003-11-122.pdf*

# Recommendations for Integrating a P300-Based Brain–Computer Interface in Virtual Reality Environments for Gaming: An Update

*File name = computers-09-00092-v2.pdf*

Principal limitation of using EEG for gaming : low transfer rate (preventing movement while using VR)