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Dear Wearable Robotics Community

Wearable exoskeletons or “Physical Assistant Robots” are being developed for a variety of service and industrial applications. The service tasks are to help lay people move around for normal daily living or carry heavy items around the home whereas the industrial exoskeletons are designed to aid in physically demanding manufacturing tasks such as manipulating objects or holding heavy objects, or lifting and moving boxes in palletizing tasks. These robots show great promise reducing the physical burden of the task while relying on the human’s intelligence to work in unstructured environments. However, we confirm that there needs to be more development of normative human safety data for Physical Assistant robots so that safety requirements and appropriate design methods can be formulated as well as normative test methods to assess the regulatory specifications are met for different types of users (e.g., workers, healthy adults, elderly persons, children, etc.).

Society is very interested in these new and emerging types of robots but the development of international safety requirements and globally accepted test procedures are urgent and must occur before these systems will be widely adopted. The Wearable Robotics Association and the Climbing and Walking Robots UK charity, CLAWAR, support the development of safety requirements, normative human data, and test methods for Physical Assistant robots.

A number of activities are underway and it is hoped to engage with all the stakeholders interested to widen the application of robotics generally and wearable robots in particular so that robust and widely accepted solutions can be formulated to ensure the new wearable robots will be safe and effective for their intended uses. If you are interested to assist and help develop the missing links, or have ideas on what and how we can make more functional devices, please contact us to discuss how we can make a difference to this rapidly changing area of technology.

Sincerely,

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