

## Wearable Robot Perception (WeaR-P) Questionnaire

Draft Version 1.0\*

Applied Cognition and Safety Lab

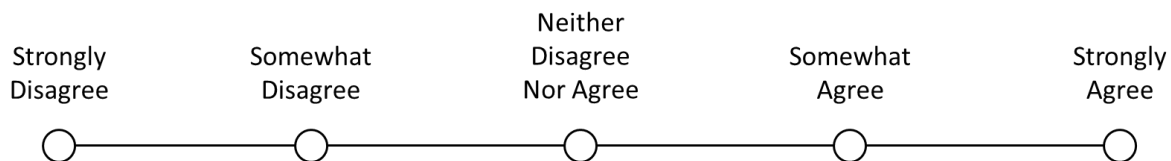
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This questionnaire can be used to assess a current or future user's perception of wearable robots in ten dimensions.

Instruction for using this scale:

- *wearable robot(s)* can be replaced with a name of a specific wearable assistive system, such as exoskeleton(s) or robotic prosthesis (prostheses).
- Reverse coded items: # 6, 7, 11, 12, 16, 19, 21, 24

Please rate your level of agreement or disagreement with the following statements.



Dimension	Question	Rating
I. Usefulness	1. <i>Wearable robots</i> would help me perform physically demanding tasks.	1 2 3 4 5
	2. Using a <i>wearable robot</i> would increase my productivity.	1 2 3 4 5
	3. Using a <i>wearable robot</i> would improve my performance.	1 2 3 4 5
	4. Using a <i>wearable robot</i> would enhance my effectiveness.	1 2 3 4 5
	5. Using a <i>wearable robot</i> would improve the quality of my work.	1 2 3 4 5
II. Ease of Use	6. Using a <i>wearable robot</i> would require mental effort.	1 2 3 4 5
	7. Using a <i>wearable robot</i> would require physical effort.	1 2 3 4 5
	8. I would quickly know how to use a <i>wearable robot</i> .	1 2 3 4 5
	9. I would be able to use a <i>wearable robot</i> without any help or training.	1 2 3 4 5
	10. It would be easy for me to become competent at using a <i>wearable robot</i> .	1 2 3 4 5
III. Affect	11. I would feel uneasy if I was given a job where I had to use <i>wearable robots</i> .	1 2 3 4 5
	12. I would find <i>wearable robots</i> intimidating.	1 2 3 4 5
	13. <i>Wearable robots</i> would make life more interesting.	1 2 3 4 5
	14. I would enjoy wearing a <i>wearable robot</i> .	1 2 3 4 5
	15. I would find <i>wearable robots</i> fascinating.	1 2 3 4 5
	16. I would be nervous using a <i>wearable robot</i> .	1 2 3 4 5

IV. Safety and Health Impact	17. Using a <i>wearable robot</i> would make me less fatigued during physical tasks.	1	2	3	4	5
	18. <i>Wearable robots</i> would help me perform my work safely.	1	2	3	4	5
	19. Wearing a <i>wearable robot</i> would result in pain and discomfort.	1	2	3	4	5
	20. <i>Wearable robots</i> would prevent injuries.	1	2	3	4	5
V. Social Influence	21. I would feel nervous operating a <i>wearable robot</i> in front of other people.	1	2	3	4	5
	22. My family and friends would be in favor of me using a <i>wearable robot</i> .	1	2	3	4	5
	23. My coworkers would be in favor of me using a <i>wearable robot</i> .	1	2	3	4	5
VI. Embodiment	24. When wearing a <i>wearable robot</i> , I would see it as an external tool.	1	2	3	4	5
	25. When wearing a <i>wearable robot</i> , I would see it as part of my body.	1	2	3	4	5
	26. When wearing a <i>wearable robot</i> , I would see it as an extension of my body.	1	2	3	4	5
	27. I would feel emotionally attached to it if I used a <i>wearable robot</i> for an extended period of time.	1	2	3	4	5
VII. Reliability	28. In general, <i>wearable robots</i> would be reliable.	1	2	3	4	5
	29. In general, <i>wearable robots</i> would be dependable.	1	2	3	4	5
	30. In general, <i>wearable robots</i> would be consistent.	1	2	3	4	5
VIII. Adaptability	31. <i>Wearable robots</i> would be able to adapt to assist me with what I need at a particular moment.	1	2	3	4	5
	32. <i>Wearable robots</i> will be able to adapt to what I need with my changing capabilities.	1	2	3	4	5
IX. Cost	33. The maintenance of a <i>wearable robot</i> would be difficult.	1	2	3	4	5
	34. I worry about a <i>wearable robot</i> breaking down easily.	1	2	3	4	5
	35. <i>Wearable robots</i> would require costly repairs.	1	2	3	4	5
X. Aesthetic	36. <i>Wearable robots</i> are visually appealing.	1	2	3	4	5
	37. <i>Wearable robots</i> look sophisticated.	1	2	3	4	5
	38. Wearing a <i>wearable robot</i> would make me look professional.	1	2	3	4	5
	39. I like the overall look of <i>wearable robots</i> .	1	2	3	4	5
	40. Wearing a <i>wearable robot</i> would make me look powerful.	1	2	3	4	5

**Citation:** Valentin, Y., & Choi, H. (2023). The Development of the Wearable Robot Perception (WeaR-P) Questionnaire. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*. <https://doi.org/10.1177/21695067231192558>

**\*Note.** This draft questionnaire has not been comprehensively evaluated. An updated questionnaire is expected to be published in early to mid-2024.