

## *Supplementary Material*

# **The Effect of Human Autonomy and Robot Work Pace on Perceived Workload in Human-Robot Collaborative Assembly Work**

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### **Statistical tests**

Table 1 - Table 6 show the outcomes of the Wilcoxon Signed Ranks Tests. The comparison Fast Robot Lead (FRL) with Human Lead (HL) tests the effect of human autonomy. The comparison FRL with Slow Robot Lead (SRL) tests the effect of robot work pace.

**Table 1: Test Statistics Cognitive**

	SRL-HL	FRL-HL	FRL-SRL
Z	-2,054 <sup>a</sup>	-3,519 <sup>a</sup>	-2,230 <sup>a</sup>
Asymp. Sig. (2-tailed)	,040	<,001	,026
a. Based on negative ranks.			

**Table 2: Test Statistics Physical**

	SRL-HL	FRL-HL	FRL-SRL
Z	-1,610 <sup>a</sup>	-2,546 <sup>a</sup>	-,526 <sup>a</sup>
Asymp. Sig. (2-tailed)	,107	,011	,599
a. Based on negative ranks.			

**Table 3: Test Statistics Temporal**

	SRL-HL	FRL-HL	FRL-SRL
Z	-,026 <sup>a</sup>	-2,676 <sup>b</sup>	-2,667 <sup>b</sup>
Asymp. Sig. (2-tailed)	,979	,007	,008
a. Based on positive ranks.			
b. Based on negative ranks.			

**Table 4: Test Statistics Effort**

	SRL-HL	FRL-HL	FRL-SRL
Z	-,189 <sup>a</sup>	-2,170 <sup>a</sup>	-1,261 <sup>a</sup>
Asymp. Sig. (2-tailed)	,850	,030	,207
a. Based on negative ranks.			

**Table 5: Test Statistics Frustration**

	SRL-HL	FRL-HL	FRL-SRL
Z	-,281 <sup>a</sup>	-2,149 <sup>a</sup>	-1,015 <sup>a</sup>
Asymp. Sig. (2-tailed)	,778	,032	,310
a. Based on negative ranks.			

**Table 6: Test Statistics Performance**

	SRL-HL	FRL-HL	FRL-SRL
Z	-1,107 <sup>a</sup>	-1,114 <sup>a</sup>	-,120 <sup>a</sup>
Asymp. Sig. (2-tailed)	,268	,265	,905
a. Based on positive ranks.			