

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
pledC - ledC	Negative Ranks	2 ^a	1.75	3.50
	Positive Ranks	1 ^b	2.50	2.50
	Ties	7 ^c		
	Total	10		
motorC - ledC	Negative Ranks	1 ^d	2.00	2.00
	Positive Ranks	2 ^e	2.00	4.00
	Ties	7 ^f		
	Total	10		
imotorC - ledC	Negative Ranks	3 ^g	2.67	8.00
	Positive Ranks	1 ^h	2.00	2.00
	Ties	6 ⁱ		
	Total	10		
thermalC - ledC	Negative Ranks	0 ^j	.00	.00
	Positive Ranks	5 ^k	3.00	15.00
	Ties	1 ^l		
	Total	6		
audioC - ledC	Negative Ranks	2 ^m	3.50	7.00
	Positive Ranks	4 ⁿ	3.50	14.00
	Ties	4 ^o		
	Total	10		
motorC - pledC	Negative Ranks	1 ^p	5.00	5.00
	Positive Ranks	4 ^q	2.50	10.00
	Ties	5 ^r		
	Total	10		
imotorC - pledC	Negative Ranks	1 ^s	2.00	2.00
	Positive Ranks	1 ^t	1.00	1.00
	Ties	8 ^u		
	Total	10		
thermalC - pledC	Negative Ranks	0 ^v	.00	.00
	Positive Ranks	5 ^w	3.00	15.00
	Ties	1 ^x		
	Total	6		
audioC - pledC	Negative Ranks	1 ^y	1.50	1.50
	Positive Ranks	3 ^z	2.83	8.50
	Ties	6 ^{aa}		
	Total	10		

Ranks

		N	Mean Rank	Sum of Ranks
imotorC - motorC	Negative Ranks	4 ^{ab}	2.50	10.00
	Positive Ranks	0 ^{ac}	.00	.00
	Ties	6 ^{ad}		
	Total	10		
thermalC - motorC	Negative Ranks	0 ^{ae}	.00	.00
	Positive Ranks	6 ^{af}	3.50	21.00
	Ties	0 ^{ag}		
	Total	6		
audioC - motorC	Negative Ranks	3 ^{ah}	3.50	10.50
	Positive Ranks	4 ^{ai}	4.38	17.50
	Ties	3 ^{aj}		
	Total	10		
thermalC - imotorC	Negative Ranks	0 ^{ak}	.00	.00
	Positive Ranks	6 ^{al}	3.50	21.00
	Ties	0 ^{am}		
	Total	6		
audioC - imotorC	Negative Ranks	1 ^{an}	1.50	1.50
	Positive Ranks	4 ^{ao}	3.38	13.50
	Ties	5 ^{ap}		
	Total	10		
audioC - thermalC	Negative Ranks	6 ^{aq}	3.50	21.00
	Positive Ranks	0 ^{ar}	.00	.00
	Ties	0 ^{as}		
	Total	6		

- a. pledC < ledC
- b. pledC > ledC
- c. pledC = ledC
- d. motorC < ledC
- e. motorC > ledC
- f. motorC = ledC
- g. imotorC < ledC
- h. imotorC > ledC
- i. imotorC = ledC
- j. thermalC < ledC
- k. thermalC > ledC
- l. thermalC = ledC
-

m. audioC < ledC
 n. audioC > ledC
 o. audioC = ledC
 p. motorC < pledC
 q. motorC > pledC
 r. motorC = pledC
 s. imotorC < pledC
 t. imotorC > pledC
 u. imotorC = pledC
 v. thermalC < pledC
 w. thermalC > pledC
 x. thermalC = pledC
 y. audioC < pledC
 z. audioC > pledC
 aa. audioC = pledC
 ab. imotorC < motorC
 ac. imotorC > motorC
 ad. imotorC = motorC
 ae. thermalC < motorC
 af. thermalC > motorC
 ag. thermalC = motorC
 ah. audioC < motorC
 ai. audioC > motorC
 aj. audioC = motorC
 ak. thermalC < imotorC
 al. thermalC > imotorC
 am. thermalC = imotorC
 an. audioC < imotorC
 ao. audioC > imotorC
 ap. audioC = imotorC
 aq. audioC < thermalC
 ar. audioC > thermalC
 as. audioC = thermalC

Test Statistics^a

	pledC - ledC	motorC - ledC	imotorC - ledC	thermalC - ledC
Z	-.272 ^b	-.577 ^c	-1.134 ^b	-2.041 ^c
Asymp. Sig. (2-tailed)	.785	.564	.257	.041

Test Statistics^a

	audioC - ledC	motorC - pledC	imotorC - pledC	thermalC - pledC
Z	-.750^c	-.707^c	-.447^b	-2.041^c
Asymp. Sig. (2-tailed)	.453	.480	.655	.041

Test Statistics^a

	audioC - pledC	imotorC - motorC	thermalC - motorC	audioC - motorC
Z	-1.300^c	-2.000^b	-2.226^c	-.632^c
Asymp. Sig. (2-tailed)	.194	.046	.026	.527

Test Statistics^a

	thermalC - imotorC	audioC - imotorC	audioC - thermalC
Z	-2.214^c	-1.656^c	-2.214^b
Asymp. Sig. (2-tailed)	.027	.098	.027

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

c. Based on negative ranks.