

Wilcoxon Signed Ranks Test

Ranks

		N	Mean Rank	Sum of Ranks
pledR - ledR	Negative Ranks	0 ^a	.00	.00
	Positive Ranks	7 ^b	4.00	28.00
	Ties	3 ^c		
	Total	10		
motorR - ledR	Negative Ranks	3 ^d	2.00	6.00
	Positive Ranks	0 ^e	.00	.00
	Ties	7 ^f		
	Total	10		
imotorR - ledR	Negative Ranks	2 ^g	2.50	5.00
	Positive Ranks	2 ^h	2.50	5.00
	Ties	6 ⁱ		
	Total	10		
thermalR - ledR	Negative Ranks	0 ^j	.00	.00
	Positive Ranks	10 ^k	5.50	55.00
	Ties	0 ^l		
	Total	10		
audioR - ledR	Negative Ranks	3 ^m	2.00	6.00
	Positive Ranks	0 ⁿ	.00	.00
	Ties	7 ^o		
	Total	10		
motorR - pledR	Negative Ranks	7 ^p	4.00	28.00
	Positive Ranks	0 ^q	.00	.00
	Ties	3 ^r		
	Total	10		
imotorR - pledR	Negative Ranks	7 ^s	4.71	33.00
	Positive Ranks	1 ^t	3.00	3.00
	Ties	2 ^u		
	Total	10		
thermalR - pledR	Negative Ranks	0 ^v	.00	.00
	Positive Ranks	10 ^w	5.50	55.00
	Ties	0 ^x		
	Total	10		
audioR - pledR	Negative Ranks	7 ^y	4.00	28.00
	Positive Ranks	0 ^z	.00	.00
	Ties	3 ^{aa}		
	Total	10		

Ranks

		N	Mean Rank	Sum of Ranks
imotorR - motorR	Negative Ranks	0 ^{ab}	.00	.00
	Positive Ranks	3 ^{ac}	2.00	6.00
	Ties	7 ^{ad}		
	Total	10		
thermalR - motorR	Negative Ranks	0 ^{ae}	.00	.00
	Positive Ranks	10 ^{af}	5.50	55.00
	Ties	0 ^{ag}		
	Total	10		
audioR - motorR	Negative Ranks	0 ^{ah}	.00	.00
	Positive Ranks	0 ^{ai}	.00	.00
	Ties	10 ^{aj}		
	Total	10		
thermalR - imotorR	Negative Ranks	0 ^{ak}	.00	.00
	Positive Ranks	10 ^{al}	5.50	55.00
	Ties	0 ^{am}		
	Total	10		
audioR - imotorR	Negative Ranks	3 ^{an}	2.00	6.00
	Positive Ranks	0 ^{ao}	.00	.00
	Ties	7 ^{ap}		
	Total	10		
audioR - thermalR	Negative Ranks	10 ^{aq}	5.50	55.00
	Positive Ranks	0 ^{ar}	.00	.00
	Ties	0 ^{as}		
	Total	10		

- a. pledR < ledR
- b. pledR > ledR
- c. pledR = ledR
- d. motorR < ledR
- e. motorR > ledR
- f. motorR = ledR
- g. imotorR < ledR
- h. imotorR > ledR
- i. imotorR = ledR
- j. thermalR < ledR
- k. thermalR > ledR
- l. thermalR = ledR
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m. $\text{audioR} < \text{ledR}$
n. $\text{audioR} > \text{ledR}$
o. $\text{audioR} = \text{ledR}$
p. $\text{motorR} < \text{pledR}$
q. $\text{motorR} > \text{pledR}$
r. $\text{motorR} = \text{pledR}$
s. $\text{imotorR} < \text{pledR}$
t. $\text{imotorR} > \text{pledR}$
u. $\text{imotorR} = \text{pledR}$
v. $\text{thermalR} < \text{pledR}$
w. $\text{thermalR} > \text{pledR}$
x. $\text{thermalR} = \text{pledR}$
y. $\text{audioR} < \text{pledR}$
z. $\text{audioR} > \text{pledR}$
aa. $\text{audioR} = \text{pledR}$
ab. $\text{imotorR} < \text{motorR}$
ac. $\text{imotorR} > \text{motorR}$
ad. $\text{imotorR} = \text{motorR}$
ae. $\text{thermalR} < \text{motorR}$
af. $\text{thermalR} > \text{motorR}$
ag. $\text{thermalR} = \text{motorR}$
ah. $\text{audioR} < \text{motorR}$
ai. $\text{audioR} > \text{motorR}$
aj. $\text{audioR} = \text{motorR}$
ak. $\text{thermalR} < \text{imotorR}$
al. $\text{thermalR} > \text{imotorR}$
am. $\text{thermalR} = \text{imotorR}$
an. $\text{audioR} < \text{imotorR}$
ao. $\text{audioR} > \text{imotorR}$
ap. $\text{audioR} = \text{imotorR}$
aq. $\text{audioR} < \text{thermalR}$
ar. $\text{audioR} > \text{thermalR}$
as. $\text{audioR} = \text{thermalR}$

Test Statistics^a

	pledR - ledR	motorR - ledR	imotorR - ledR	thermalR - ledR
Z	-2.456 ^b	-1.732 ^c	.000 ^d	-2.877 ^b
Asymp. Sig. (2-tailed)	.014	.083	1.000	.004

Test Statistics^a

	audioR - ledR	motorR - pledR	imotorR - pledR	thermalR - pledR
Z	-1.732 ^c	-2.414 ^c	-2.157 ^c	-2.831 ^b
Asymp. Sig. (2-tailed)	.083	.016	.031	.005

Test Statistics^a

	audioR - pledR	imotorR - motorR	thermalR - motorR	audioR - motorR
Z	-2.414 ^c	-1.732 ^b	-2.972 ^b	.000 ^d
Asymp. Sig. (2-tailed)	.016	.083	.003	1.000

Test Statistics^a

	thermalR - imotorR	audioR - imotorR	audioR - thermalR
Z	-2.879 ^b	-1.732 ^c	-2.972 ^c
Asymp. Sig. (2-tailed)	.004	.083	.003

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

c. Based on positive ranks.

d. The sum of negative ranks equals the sum of positive ranks.