

Article

Design and Development of a Low Cost, Non-Contact Infrared Thermometer with Range Compensation

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Table S1. Measured dry and wet forehead temperature against distance between 2 - 4 cm of the five volunteers.

Dis- tance (cm)	Volun- teer	Centre				Left				Right			
		Dry	Wet	Difference (Dry - Wet)	Sig. (2- tailed)	Dry	Wet	Difference (Dry - Wet)	Sig. (2- tailed)	Dry	Wet	Difference (Dry - Wet)	Sig. (2- tailed)
2.0	1	34.46 ± 0.02	33.13 ± 0.03	1.34 ± 0.01	0.00**	30.38 ± 0.01	32.23 ± 0.03	-2.85 ± 0.02	0.00**	34.46 ± 0.02	32.90 ± 0.02	1.57 ± 0.01	0.01*
	2	33.08 ± 0.17	31.22 ± 0.02	1.85 ± 0.08	0.02*	34.30 ± 0.17	33.50 ± 0.00	0.80 ± 0.07	0.10	34.75 ± 0.12	32.40 ± 0.54	2.35 ± 0.25	0.06
	3	34.70 ± 0.04	32.20 ± 0.06	2.49 ± 0.03	0.00**	34.84 ± 0.00	32.83 ± 0.13	2.01 ± 0.06	0.01*	33.89 ± 0.02	33.55 ± 0.10	0.34 ± 0.05	0.19
	4	34.35 ± 0.07	32.45 ± 0.04	1.89 ± 0.04	0.01*	33.32 ± 0.01	31.91 ± 0.05	1.41 ± 0.02	0.01*	32.27 ± 0.43	31.31 ± 0.02	0.96 ± 0.19	0.19
	5	34.47 ± 0.00	33.44 ± 0.13	1.03 ± 0.06	0.05	34.67 ± 0.16	33.12 ± 0.00	1.55 ± 0.07	0.02*	32.74 ± 0.01	32.92 ± 0.49	-0.18 ± 0.22	0.73
2.5	1	34.35 ± 0.03	31.91 ± 0.03	1.69 ± 0.05	0.00**	34.11 ± 0.00	31.91 ± 0.03	2.20 ± 0.01	0.00**	34.40 ± 0.01	31.59 ± 0.61	2.81 ± 0.27	0.04*
	2	33.86 ± 0.01	32.28 ± 0.01	1.58 ± 0.01	0.00**	34.19 ± 0.01	33.91 ± 0.03	0.28 ± 0.01	0.09	34.79 ± 0.16	34.54 ± 0.03	0.26 ± 0.07	0.59
	3	34.21 ± 0.00	32.14 ± 0.06	2.07 ± 0.02	0.01*	34.28 ± 0.02	32.73 ± 0.03	1.55 ± 0.01	0.01*	32.85 ± 0.25	33.20 ± 0.32	-0.35 ± 0.18	0.64
	4	33.98 ± 0.00	31.65 ± 0.11	2.33 ± 0.05	0.01*	33.65 ± 0.10	32.31 ± 0.14	1.34 ± 0.08	0.02*	33.62 ± 0.07	31.07 ± 0.38	2.55 ± 0.17	0.04*
	5	33.32 ± 1.99	32.81 ± 0.00	0.51 ± 0.89	0.67	34.02 ± 0.02	33.30 ± 0.00	0.72 ± 0.01	0.03*	33.44 ± 0.46	33.68 ± 0.21	-0.24 ± 0.22	0.77
3.0	1	33.52 ± 0.13	32.47 ± 0.11	1.37 ± 0.06	0.02*	34.33 ± 0.01	32.47 ± 0.11	1.86 ± 0.05	0.01*	33.98 ± 0.02	31.98 ± 0.00	2.00 ± 0.01	0.00**
	2	33.36 ± 0.01	30.76 ± 0.27	2.60 ± 0.12	0.03*	33.47 ± 0.01	33.51 ± 0.00	-0.04 ± 0.00	0.57	34.41 ± 0.08	32.94 ± 0.00	1.47 ± 0.04	0.03*
	3	34.13 ± 0.33	31.77 ± 0.13	2.36 ± 0.16	0.01*	33.94 ± 0.01	32.96 ± 0.02	0.98 ± 0.01	0.00**	33.52 ± 0.02	32.26 ± 0.12	1.26 ± 0.05	0.05
	4	33.29 ± 0.03	31.50 ± 0.06	1.79 ± 0.03	0.02*	32.88 ± 0.03	31.41 ± 0.08	1.47 ± 0.04	0.00**	32.83 ± 0.07	31.93 ± 0.01	0.90 ± 0.03	0.02*
	5	33.77 ± 0.14	32.11 ± 0.00	1.66 ± 0.06	0.03*	34.26 ± 0.04	32.54 ± 0.03	1.73 ± 0.02	0.02*	33.24 ± 0.05	31.92 ± 1.23	1.32 ± 0.55	0.26
3.5	1	33.95 ± 0.05	31.93 ± 0.00	1.87 ± 0.02	0.01*	34.76 ± 0.18	31.93 ± 0.00	2.83 ± 0.08	0.01*	34.68 ± 0.02	31.93 ± 0.00	2.75 ± 0.01	0.00**
	2	33.78 ± 0.01	32.25 ± 0.00	1.54 ± 0.00	0.00**	33.86 ± 0.04	33.86 ± 0.00	0.00 ± 0.02	1.00	34.75 ± 0.02	33.44 ± 0.04	1.31 ± 0.02	0.00**
	3	33.75 ± 0.19	32.98 ± 0.04	0.77 ± 0.09	0.22	33.93 ± 0.36	33.10 ± 0.37	0.82 ± 0.23	0.02*	33.43 ± 0.46	32.41 ± 0.19	1.01 ± 0.22	0.17
	4	34.57 ± 0.01	32.84 ± 0.00	1.73 ± 0.00	0.00**	33.81 ± 0.01	31.68 ± 0.43	2.13 ± 0.19	0.05	33.34 ± 0.50	31.54 ± 0.06	1.80 ± 0.23	0.12
	5	34.17 ± 0.01	32.10 ± 0.00	2.07 ± 0.00	0.00**	33.36 ± 0.01	32.60 ± 0.01	0.76 ± 0.01	0.02*	33.33 ± 0.01	32.57 ± 0.01	0.76 ± 0.01	0.02**
4.0	1	33.09 ± 0.12	32.78 ± 0.04	1.16 ± 0.06	0.04*	35.61 ± 0.00	32.78 ± 0.04	2.83 ± 0.02	0.00**	35.29 ± 0.00	32.23 ± 0.01	3.06 ± 0.00	0.00**
	2	33.09 ± 0.12	32.29 ± 0.02	0.80 ± 0.06	0.08	34.38 ± 0.02	34.30 ± 0.01	0.09 ± 0.01	0.08	35.18 ± 0.00	33.68 ± 0.08	1.49 ± 0.03	0.02*
	3	34.60 ± 0.11	33.51 ± 0.04	1.09 ± 0.05	0.07	33.56 ± 0.37	33.86 ± 0.06	-0.29 ± 0.17	0.05	32.54 ± 0.03	32.18 ± 0.15	0.36 ± 0.07	0.47
	4	34.32 ± 0.00	32.63 ± 0.04	1.69 ± 0.02	0.01*	33.50 ± 0.04	32.40 ± 0.06	1.10 ± 0.03	0.00**	32.92 ± 0.41	31.82 ± 0.00	1.10 ± 0.18	0.13
	5	34.48 ± 0.01	32.55 ± 0.24	1.93 ± 0.11	0.04*	34.42 ± 0.02	32.93 ± 0.01	1.49 ± 0.01	0.00**	33.42 ± 0.01	32.48 ± 0.08	0.94 ± 0.03	0.06

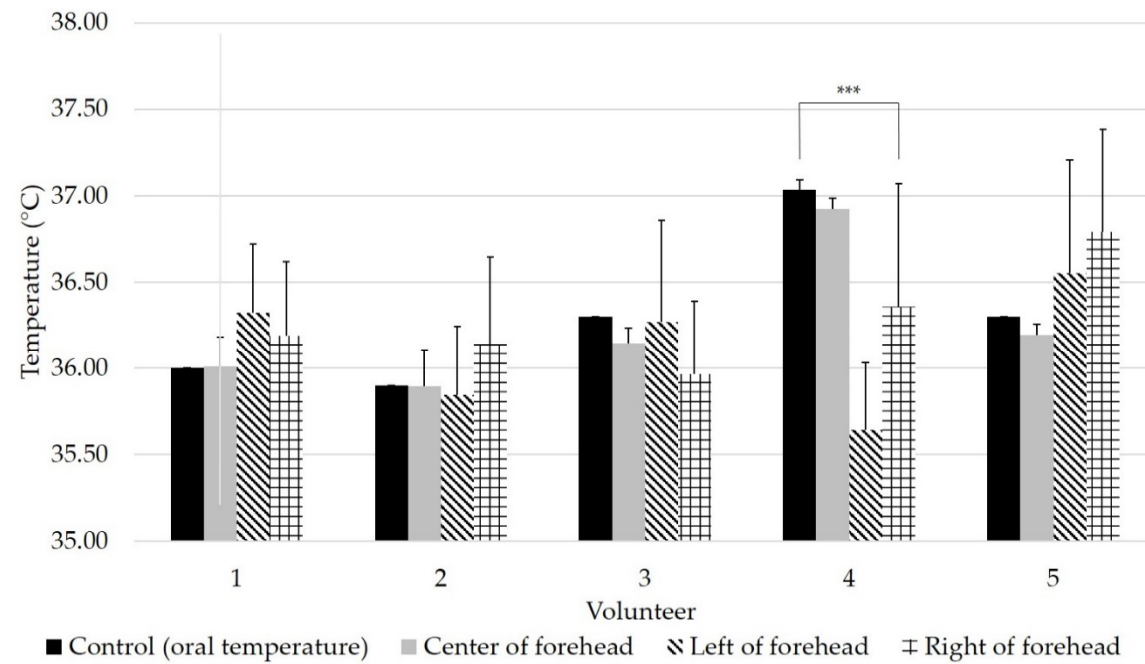


Figure S1: Statistical difference between the recorded average temperatures for the five volunteers. *** depicts p-values of statistical tests of the mean difference against the control (oral temperature) at $p < 0.001$.