

Supplementary Table 1 | Discriminability distance distribution and p-values from Wilcoxon signed-rank tests for the Tingle *with no* thermal sensor data between the sampling distribution and original distance (median $\pm$ MAD)

Target pair	Discriminability distance: Shuffled labels	Discriminability distance: True labels	p-value	Effect size
Mouth - Nose	0.16 $\pm$ 0.07	2.11 $\pm$ 1.08	3.50e-07	3.37
Mouth - Cheek	0.17 $\pm$ 0.10	2.30 $\pm$ 0.44	3.57e-08	3.02
Mouth - Eyebrow	0.16 $\pm$ 0.04	1.67 $\pm$ 1.08	7.59e-08	2.71
Mouth - Top-head	0.15 $\pm$ 0.06	2.32 $\pm$ 0.66	4.16e-08	2.63
Mouth - Back-head	0.23 $\pm$ 0.11	2.59 $\pm$ 0.57	3.57e-08	1.40
Nose - Cheek	0.09 $\pm$ 0.08	0.49 $\pm$ 0.46	4.29e-06	1.71
Nose - Eyebrow	0.11 $\pm$ 0.06	0.85 $\pm$ 0.90	5.91e-06	2.41
Nose - Top-head	0.22 $\pm$ 0.22	2.19 $\pm$ 0.91	2.45e-07	1.38
Nose - Back-head	0.18 $\pm$ 0.13	2.12 $\pm$ 1.12	3.85e-08	2.00
Cheek - Eyebrow	0.10 $\pm$ 0.08	0.77 $\pm$ 0.81	1.83e-06	1.87
Cheek - Top-head	0.20 $\pm$ 0.16	2.18 $\pm$ 0.67	1.37e-07	2.37
Cheek - Back-head	0.22 $\pm$ 0.21	1.63 $\pm$ 1.12	3.85e-08	1.71
Eyebrow - Top-head	0.19 $\pm$ 0.14	1.91 $\pm$ 1.01	5.63e-08	3.26
Eyebrow - Back-head	0.22 $\pm$ 0.19	2.33 $\pm$ 0.78	3.57e-08	1.78
Top-head - Back-head	0.22 $\pm$ 0.13	2.11 $\pm$ 0.90	1.37e-07	1.94

Supplementary Table 2 | Discriminability distance distribution and p-values from Wilcoxon signed-rank tests for the Tingle *with* thermal sensor data between the sampling distribution and original distance (median $\pm$ MAD)

Target pair	Discriminability distance: Shuffled labels	Discriminability distance: True labels	p-value	Effect size
Mouth - Nose	0.62 $\pm$ 0.21	3.06 $\pm$ 1.04	6.07e-08	1.91
Mouth - Cheek	0.71 $\pm$ 0.20	3.07 $\pm$ 0.94	4.84e-08	1.62
Mouth - Eyebrow	0.62 $\pm$ 0.20	2.61 $\pm$ 0.75	8.18e-08	2.04
Mouth - Top-head	0.65 $\pm$ 0.11	2.94 $\pm$ 0.48	3.57e-08	1.51

Mouth - Back-head	0.76 ± 0.23	3.31 ± 0.47	3.57e-08	1.35
Nose - Cheek	0.52 ± 0.18	1.25 ± 0.84	3.76e-07	1.62
Nose - Eyebrow	0.62 ± 0.38	2.17 ± 0.84	7.56e-07	1.43
Nose - Top-head	1.49 ± 1.14	3.27 ± 0.91	9.29e-07	1.26
Nose - Back-head	0.82 ± 0.41	3.32 ± 0.66	8.68e-07	1.28
Cheek - Eyebrow	0.63 ± 0.32	2.23 ± 1.32	2.09e-06	1.75
Cheek - Top-head	1.05 ± 0.65	3.22 ± 0.96	9.18e-06	1.22
Cheek - Back-head	0.82 ± 0.40	3.01 ± 0.72	6.54e-08	1.31
Eyebrow - Top-head	0.77 ± 0.38	2.71 ± 0.91	3.31e-06	1.32
Eyebrow - Back-head	0.84 ± 0.33	3.01 ± 0.77	3.57e-08	1.51
Top-head - Back-head	0.89 ± 0.40	2.88 ± 0.50	5.22e-08	1.29

Supplementary Table 3 | AUROC value distribution (for individual and general classifiers) and p-values from Wilcoxon signed-rank tests for the Tingle *with no* thermal sensor data and *with* thermal sensor data (median ± MAD)

	Mouth	Nose	Cheek	Eyebrow	Top-head	Back-head
No thermal	0.86 ± 0.13	0.69 ± 0.26	0.60 ± 0.15	0.74 ± 0.36	0.91 ± 0.12	0.73 ± 0.33
Yes thermal	0.99 ± 0.01	0.96 ± 0.07	0.93 ± 0.09	0.96 ± 0.06	0.98 ± 0.06	1.00 ± 0.00
p-value	3.20e-07	1.14e-07	6.15e-08	2.48e-07	3.65e-07	7.25e-08
Effect size	1.27	1.37	1.93	1.66	0.94	3.49
General	0.89 ± 0.13	0.83 ± 0.13	0.75 ± 0.15	0.84 ± 0.07	0.89 ± 0.10	0.94 ± 0.08