

SUPPLEMENTARY MATERIALS

Appendix 1: Observed vibration frequency (FFT) of the vibration device (miniature motor) with mechanical mounting

<i>Sample</i>	<i>Observed Frequency (Hz)</i>
1	243
2	240
3	248
4	243
5	250
6	262
7	255
8	255
9	250
10	250
Mean	249.6
Standard Deviation	6.62

Appendix 2: Contingency table of the Vibration Pattern and Surface Texture (generated by SPSS software)

			Texture				Total
			A	B	C	D	
Vibration Pattern	A	Count	35	17	16	7	75
		Expected Count	11.3	19.5	20.0	24.3	75.0
	B	Count	1	23	18	33	75
		Expected Count	11.3	19.5	20.0	24.3	75.0
	C	Count	2	26	28	19	75
		Expected Count	11.3	19.5	20.0	24.3	75.0
	D	Count	7	12	18	38	75
		Expected Count	11.3	19.5	20.0	24.3	75.0
Total	Count	45	78	80	97	300	
	Expected Count	45.0	78.0	80.0	97.0	300.0	

Appendix 2 shows the contingency table of the vibration patterns and the surface textures, generated using the SPSS software. There were 300 number of samples altogether with 75 samples for each vibration patterns. The term 'count' refers to the frequency a texture being selected for a given vibration pattern. The 'expected count' is the projected frequency if there is no association between the two variables (surface texture and vibration pattern).

Appendix 3: Data Collection Plan

Title of study: Psychophysics investigations in associating surface textures with vibrations
Reference number: ERGO/FPSE/15290

Appendix (ii): Data Collection Plan

The purpose of this data collection is to investigate whether the vibration generated and perceived at the upper arm could be associated with the surface texture provided. There will be 4 types of vibration patterns that will be randomly repeated 5 times. The participants are required to associate the vibration patterns with the given surface textures (4 types – A, B, C and D). For each vibration patterns perceived at the upper arm, the participants will verbally state the type of textures closely represented by the vibration. The information will be gathered by the investigator by using this form.

Length of Upper Arm: ____ cm

$\frac{1}{4}$ Length of Upper Arm: ____ cm

No of trials	Vibration Patterns (randomly generated)	Type of Texture (to be selected by participants)
1	Pattern B	
2	Pattern B	
3	Pattern A	
4	Pattern D	
5	Pattern A	
6	Pattern C	
7	Pattern A	
8	Pattern D	
9	Pattern B	
10	Pattern D	
11	Pattern C	
12	Pattern D	
13	Pattern A	
14	Pattern C	
15	Pattern C	
16	Pattern D	
17	Pattern C	
18	Pattern B	
19	Pattern A	
20	Pattern B	