**List of procedures for prototype two testing for novel gesture-based Human-Computer Interface**

**APDS9500:**

We are doing research on Dopple’s customized earphones which require a new touchless approach to their user interface. You do not have to take part in this research if you do not wish to do so. You may also stop participating in the research at any time you choose. It is your choice and all of your rights will still be respected.

Today, we would like to test out the ability for the sensors to distinguish between the following six gestures:

* Backwards
* Forwards
* Downwards
* Upwards
* Away
* Towards

Firstly, please test out all the movements for readjustments of the sensor and to get used to the movements.

NB: For each movement, it is important to isolate each movement i.e. if asked to make **backwards,** do not go forwards to get back to start position, instead go out of the sensors field-of-view.

*Single movements:*

* TEST 1: move hand **backwards** 10 times
* TEST 2: move hand **forwards** 10 times
* TEST 3: move hand **downwards** 10 times
* TEST 4: move hand **upwards** 10 times
* TEST 5: move hand **away** 10 times
* TEST 6: move hand **towards** 10 times

*Repeat without visual feedback:*

* TEST 7: move hand **backwards** 10 times
* TEST 8: move hand **forwards** 10 times
* TEST 9: move hand **downwards** 10 times
* TEST 10: move hand **upwards** 10 times
* TEST 11: move hand **away** 10 times
* TEST 12: move hand **towards** 10 times

*Interfering objects:*

* TEST 13: move hand **backwards** 10 times with a hat on covering the top of your ear
* TEST 14: move hand **backwards** 10 times with a glove on
* TEST 15: move hand **backwards** 10 times with hair in the sensors Field-of-View

**TMD2635:**

Today, we would like to test out the ability for the sensors to distinguish between the following three gestures:

* Backwards
* Forwards
* ‘tapping’ i.e. towards and away

*Single movements:*

* TEST 1: move hand **backwards** 10 times
* TEST 2: move hand **forwards** 10 times
* TEST 19: move hand **tap** 10 times, where the start position/end position should be >15cm away

*Interfering objects:*

* TEST 16: move hand **backwards** 10 times with a hat on covering the top of your ear
* TEST 17: move hand **backwards** 10 times with a glove on
* TEST 18: move hand **backwards** 10 times with hair in the way