Claims

1. A wrist rest, comprising:

a base structure;

at least two flexible supports extending from the base structure;

a vibration assembly supported on the at least two flexible supports in a manner such that the vibration assembly is spaced apart from the base structure by the at least two flexible supports;

a cushion assembly comprising a cushion disposed over the vibration assembly in a manner so as to conceal the vibration assembly between the base structure and the cushion, wherein the cushion is secured to the base structure,

wherein the at least two flexible supports are configured to isolate the base structure from a vibrating motion of the vibration assembly, and

wherein the vibrating motion of the vibration assembly causes a surface of the vibration assembly directed towards the cushion assembly to move relative to a corresponding surface of the cushion assembly directed towards the vibration assembly in a manner so as to allow the vibration motion of the vibration assembly to be sensed through the cushion of the cushion assembly,

wherein the cushion assembly further comprises a cushion-mount and a cushion-wrap, wherein the cushion is placed on the cushion-mount with the cushion-wrap wrapped over the cushion and fixed to the cushion-mount in a manner so as to bundle the cushion to the cushion-mount, and wherein the cushion-mount is attached to the base structure.

2. The wrist rest as claimed in claim 1, wherein the vibration assembly comprises a vibration member and an actuator, wherein the vibration member is supported by the at least two flexible supports, and wherein the actuator is coupled underneath the vibration member and between the at least two flexible supports so as to be suspended from the vibration member.

~~3. The wrist rest as claimed in claim 2, wherein the vibration member comprises a vibration plate.~~

~~4. The wrist rest as claimed in claim 1, wherein the at least two flexible supports are made of rubber.~~

3~~5~~. The wrist rest as claimed in claim 2, wherein each of the at least two flexible supports comprises a hollow pillar-like structure having a base flange, a top flange, and a circumferential bulge along the hollow pillar-like structure between the base flange and the top flange.

4~~6~~. The wrist rest as claimed in claim 3~~5~~, wherein the top flange and the circumferential bulge are configured to clamp a corresponding part of the vibration member, and wherein ~~the~~ a bottom flange is configured to be fixed to the base structure.

5~~7~~. The wrist rest as claimed in claim 2, wherein the cushion of the cushion assembly comprises a recessed portion and wherein the cushion is disposed over the vibration member of the vibration assembly with the vibration member arranged within the recessed portion, and wherein the recessed portion of the cushion is larger than the vibration member of the vibration assembly.

6~~8~~. The wrist rest as claimed in claim 5~~7~~, wherein a fluid or gel is filled between the recessed portion of the cushion and the vibration member of the vibration assembly.

7~~9~~. The wrist rest as claimed in claim 2, wherein the cushion assembly comprises a lubricating plate fixedly attached to a side of the cushion of the cushion assembly directed towards the vibration member of the vibration assembly in a manner so as to be opposing and facing the vibration member of the vibration assembly such that the lubricating plate is in direct contact with the vibration member of the vibration assembly.

8~~10~~. The wrist rest as claimed in claim 2, wherein a surface of the vibration member of the vibration assembly directed towards the cushion assembly comprises

bumps or rounded protrusions projecting therefrom, or

one or more lubricating pads attached thereon, wherein the one or more lubricating pads are made of self-lubricating material.

~~11. The wrist rest as claimed in claim 2, wherein a surface of the vibration member of the vibration assembly directed towards the cushion assembly comprises one or more lubricating pads attached thereon, wherein the one or more lubricating pads are made of self-lubricating material.~~

~~12. The wrist rest as claimed in claim 1, wherein the cushion assembly further comprises a cushion-mount and a cushion-wrap, wherein the cushion is placed on the cushion-mount with the cushion-wrap wrapped over the cushion and fixed to the cushion-mount in a manner so as to bundle the cushion to the cushion-mount, and wherein the cushion-mount is attached to the base structure.~~

9~~13~~. The wrist rest as claimed in claim 1, further comprising a sensor configured to detect whether a body is within a pre-determined vicinity region of the wrist rest so as to switch the vibration assembly from a sleep mode to an operational mode upon detection of the body so as to be ready for generating the vibrating motion.

10~~14~~. A wrist rest, comprising:

a base structure;

at least two flexible supports extending from the base structure;

a vibration assembly comprising a vibration member and an actuator, wherein the vibration member is supported on the at least two flexible supports in a manner such that the

vibration member is spaced apart from the base structure by the at least two flexible supports, and wherein the actuator is coupled underneath the vibration member and between the at least two flexible supports so as to be suspended from the vibration member;

a cushion assembly comprising a cushion disposed over the vibration assembly in a manner so as to conceal the vibration assembly between the base structure and the cushion, wherein the cushion is secured to the base structure; and

a lubricating layer between the vibration member of the vibration assembly and the cushion of the cushion assembly,

wherein the at least two flexible supports are configured to isolate the base structure from ~~the~~ a vibrating motion of the vibration assembly,

wherein the vibrating motion of the vibration member of the vibration assembly causes a surface of the vibration member of the vibration assembly directed towards the cushion assembly to move relative to a corresponding surface of the cushion of the cushion assembly directed towards the vibration assembly, and

wherein the lubricating layer is configured to minimise vibration losses of the vibration member of the vibration assembly and facilitate the relative movement between the vibration member of the vibration assembly and the cushion of the cushion assembly.

~~15. The wrist rest as claimed in claim 14, wherein the vibration member comprises a vibration plate.~~

~~16. The wrist rest as claimed in claim 14, wherein the at least two flexible supports are made of rubber.~~

11~~17~~. The wrist rest as claimed in claim 10~~14~~, wherein each of the at least two flexible supports comprises a hollow pillar-like structure having a base flange, a top flange, and a circumferential bulge along the hollow pillar-like structure between the base flange and the top flange, wherein the top flange and the circumferential bulge are configured to clamp a

corresponding part of the vibration member, and wherein a bottom flange is configured to be fixed to the base structure.

~~18. The wrist rest as claimed in claim 17, wherein the top flange and the circumferential bulge are configured to clamp a corresponding part of the vibration member, and wherein a bottom flange is configured to be fixed to the base structure.~~

12~~19~~. The wrist rest as claimed in claim 10~~14~~, wherein the lubricating layer comprises

a lubricating plate fixedly attached to the corresponding surface of the cushion of the cushion assembly in a manner so as to be opposing and facing the surface of the vibration member of the vibration assembly such that the lubricating plate is in direct contact the vibration member of the vibration assembly, or

bumps or rounded protrusions along the surface of the vibration member of the vibration assembly, or

one or more lubricating pad made of self-lubricating material attached to the surface of the vibration member of the vibration assembly.

~~20. The wrist rest as claimed in claim 14, wherein the lubricating layer comprises bumps or rounded protrusions along the surface of the vibration member of the vibration assembly.~~

~~21. The wrist rest as claimed in claim 14, wherein the lubricating layer comprises one or more lubricating pad made of self-lubricating material attached to the surface of the vibration member of the vibration assembly.~~

13~~22~~. The wrist rest as claimed in claim 10~~14~~, wherein the cushion assembly further comprises a cushion-mount and a cushion-wrap, wherein the cushion is placed on the cushion-mount with the cushion-wrap wrapped over the cushion and fixed to the cushion-

mount in a manner so as to bundle the cushion to the cushion-mount, and wherein the cushion-mount is attached to the base structure.

1423. The wrist rest as claimed in claim 1014, further comprising a sensor configured to detect whether a body is within a pre-determined vicinity region of the wrist rest so as to switch the vibration assembly from a sleep mode to an operational mode upon detection of the body so as to be ready for generating the vibration motion.

1524. A wrist rest, comprising:

a base structure;

at least two flexible supports extending from the base structure;

a vibration assembly comprising a vibration member and an actuator, wherein the vibration member is supported on the at least two flexible supports in a manner such that the vibration member is spaced apart from the base structure by the at least two flexible supports, and wherein the actuator is coupled underneath the vibration member and between the at least two flexible supports so as to be suspended from the vibration member;

a cushion assembly comprising a cushion which is disposed over the vibration assembly in a manner so as to conceal the vibration assembly between the base structure and the cushion, wherein the cushion is secured to the base structure; and

a lubricating plate fixedly attached to a side of the cushion of the cushion assembly directed towards the vibration ~~plate~~member,

wherein a vibrating motion of the vibration member of the vibration assembly causes a surface of the vibration member of the vibration assembly directed towards the cushion assembly to move relative to a corresponding surface of the lubricating plate directed towards the vibration assembly,

wherein the at least two flexible supports is configured to isolate the base structure from the vibrating motion of the vibration assembly, and

wherein the lubricating plate is in contact with the vibration member of the vibration assembly to minimise vibration losses of the vibration member of the vibration assembly

and facilitate the relative movement between the vibration member of the vibration assembly and the cushion of the cushion assembly.

~~25. The wrist rest as claimed in claim 24, wherein the at least two flexible supports are made of rubber.~~

16~~26~~. The wrist rest as claimed in claim 15~~24~~, wherein each of the at least two flexible supports comprises a hollow pillar-like structure having a base flange, a top flange, and a circumferential bulge along the hollow pillar-like structure between the base flange and the top flange, wherein the top flange and the circumferential bulge are configured to clamp a corresponding part of the vibration assembly, and wherein a bottom flange is configured to be fixed to the base structure.

~~27. The wrist rest as claimed in claim 26, wherein the top flange and the circumferential bulge are configured to clamp a corresponding part of the vibration assembly, and wherein a bottom flange is configured to be fixed to the base structure.~~

17~~28~~. The wrist rest as claimed in claim 15~~24~~, wherein the surface of the vibration member of the vibration assembly directed towards the cushion of the cushion assembly comprises bumps, or rounded protrusions, or one or more lubricating pad made of self-lubricating material.

18~~29~~. The wrist rest as claimed in claim 15~~24~~, wherein the cushion assembly further comprises a cushion-mount and a cushion-wrap, wherein the cushion is placed on the cushion-mount with the cushion-wrap wrapped over the cushion and fixed to the cushion-mount in a manner so as to bundle the cushion to the cushion-mount, and wherein the cushion-mount is attached to the base structure.

1930. The wrist rest as claimed in claim 1524, further comprising a sensor configured to detect whether a body is within a pre-determined vicinity region of the wrist rest so as to switch the vibration assembly from a sleep mode to an operational mode upon detection of the body so as to be ready for generating the vibration motion.