

1. A vibration device, comprising:
 - a base member;
 - a plurality of actuators being coupled to the base member and including:
 - a first actuator having a first member and a second member, the first member thereof being operatively coupled to a first portion of the base member, and the second member thereof being moveable relative to the first member of the first actuator, and
 - a second actuator having a first member and a second member, the first member thereof being operatively coupled to a second portion of the base member, and the second member thereof being moveable relative to the first member of the second actuator; and
 - means for synchronously vibrating at least the first and second ones of the plurality of actuators.
2. The vibration device of claim 1, wherein at least one of the first and second actuators comprises a linear motion vibration actuator.
3. The vibration device of claim 2, wherein the first member of the linear motion vibration actuator includes a permanent magnet, the second member of the linear motion vibration actuator includes an electromagnet, and the synchronously vibrating means is operable to modulate a magnetic force between the electromagnet and the permanent magnet.
4. The vibration device of claim 2, wherein the first member of the linear motion vibration actuator includes an electromagnet, the second member of the linear motion vibration actuator includes a permanent magnet, and the synchronously vibrating means is operable to modulate a magnetic force between the electromagnet and the permanent magnet.
5. The vibration device of claim 1, further comprising a spring device coupled to the second member of the linear motion vibration actuator for providing a restoring force thereto.
6. The vibration device of claim 1, wherein the synchronously vibrating means operates the first and second actuators at a substantially identical phase and a substantially identical frequency.
7. The vibration device of claim 1, wherein the synchronously vibrating means controls operation of the first and second actuators to vary at least one of an amplitude of a combined vibration force of the first and second actuators and a direction of the combined vibration force.
8. The vibration device of claim 1, wherein the second actuator is oriented non-orthogonally relative to the first actuator.
9. The vibration device of claim 1, wherein the plurality of actuators further includes a third actuator having a first member and a second member, the first member thereof being coupled to a third portion of the base member, the second member thereof being moveable relative to the first member of the third actuator, and the first, second and third actuators being oriented such that the vibration device is operable to generate a three dimensional combined vibration force.
10. The vibration device of claim 1, wherein at least one of the first and second actuators comprises a rotary actuator.
11. The vibration device of claim 10, wherein the rotary actuator includes a pivoting mass.
12. The vibration device of claim 11, further comprising a spring device coupled to the pivoting mass and to the base member, wherein the synchronously vibrating means is operable to control the vibration device at a resonant frequency of the pivoting mass and the spring device.
13. The vibration device of claim 12, wherein the spring device is coupled to the pivoting mass such that a nonlinear spring force is generated.
14. The vibration device of claim 1, further comprising a pair of spring devices, wherein at least one of the first and second actuators comprises a rocking actuator having a rocking mass pivotally coupled at one end thereof to the base member by the pair of spring devices.
15. The vibration device of claim 1, wherein at least the first and second actuators of the plurality of actuators are synchronously vibrated for a first duration of time and are vibrated asynchronously for a second duration of time.
16. A vibratory control system, comprising:
 - a plurality of actuators coupled to a base and including:
 - a first actuator having a first member and a second member moveable relative to the first member thereof, the first member of the first actuator being operatively coupled to a first portion of the base, and
 - a second actuator having a first member and a second member moveable relative to the first member thereof, the first member of the second actuator being operatively coupled to a second portion of the base;
 - a plurality of drivers, each of the plurality of drivers being operatively coupled to one of the plurality of actuators; and
 - a controller coupled to the plurality of drivers and operable to provide amplitude, phase and frequency information to the plurality of drivers to synchronously vibrate at least the first and second ones of the plurality of actuators.
17. The system of claim 16, wherein at least one of the frequency and phase information provided to the first actuator is substantially identical to the frequency and phase information provided to the second actuator.
18. The system of claim 16, wherein the controller includes:
 - a direction and amplitude controller operable to specify a combined vibration amplitude and a direction of vibration;
 - a frequency controller operable to specify a vibration frequency; and
 - a vibration controller operable to control the combined vibration amplitude, the direction of vibration and the vibration frequency to synchronously vibrate at least the first and second ones of the plurality of actuators.
19. The system of claim 16, further comprising a haptic interface operable to provide a force sensation to the user.
20. The system of claim 19, wherein the haptic interface includes the plurality of actuators and the plurality of drivers, and further includes an input device for receiving the input from the user.
21. The system of claim 19, further including a display device operatively connected to the controller for providing a visual display to the user.