

**[0038]** Many variations and/or combinations of the embodiments discussed herein will be apparent to those skilled in the art. For example, as noted above, the articulating frame may be combined with the Braille-like dots to form articulating Braille-like dots. Alternatively, the fixed Braille-like dots may be combined with the articulating ridges described with reference to FIG. 8 or with the compressible material of FIG. 9. It should also be noted that there are many alternative ways of implementing the methods and apparatuses of the present invention. It is therefore intended that the following appended claims be interpreted as including all such alterations, permutations, combinations and equivalents as fall within the true spirit and scope of the invention.

What is claimed is:

1. A touch sensitive surface configurable to operate as a keyboard, the touch sensitive surface comprising:

a surface cover;

a touch sensitive electrode circuit board disposed beneath the surface cover having a plurality of holes disposed therein;

an articulating frame disposed beneath the touch sensitive electrode circuit board having integral therewith a plurality of key edge ridges aligned with the holes in the touch sensitive electrode; and

at least one actuator disposed between the articulating frame and an enclosure of the touch sensitive surface and configured to displace the articulating frame so as to extend the key edge ridges through the holes in the touch sensitive electrode circuit board.

2. The touch sensitive surface of claim 1 wherein the surface cover includes a plurality of holes aligned with the holes in the circuit board and wherein the actuator is configured to displace the articulating frame so as to extend the key edge ridges through the holes in the surface cover.

3. The touch sensitive surface of claim 1 wherein the surface cover is attached to the touch sensitive electrode circuit board at a center of a key region such that extending the key edge ridges through the holes in the touch sensitive electrode circuit board forms a concave depression within the key region.

4. A touch sensitive surface according to claim 1 wherein the key edge ridges are extended when the device operates in a typing mode and retracted when the devices operates in a pointing mode.

5. A touch sensitive surface according to claim 2 wherein the key edge ridges are extended when the device operates in a typing mode and retracted when the devices operates in a pointing mode.

6. A touch sensitive surface according to claim 3 wherein the key edge ridges are extended when the device operates in a typing mode and retracted when the devices operates in a pointing mode.

7. The touch sensitive surface of claim 4 wherein switching between typing mode and pointing mode is accomplished manually.

8. The touch sensitive surface of claim 7 wherein manual switching is accomplished by at least one of: actuating a

switch, pressing a button, touching the surface in a pre-defined region, and performing a pre-determined gesture.

9. The touch sensitive surface of claim 4 wherein switching between typing mode and pointing mode is accomplished automatically.

10. The touch sensitive surface of claim 9 wherein at least one of the following:

the typing mode is activated when asynchronous touches are detected;

the typing mode is deactivated when asynchronous touches are no longer detected;

the typing mode is activated when homing chords are detected;

the typing mode is deactivated when homing chords are no longer detected;

the pointing mode is activated when lateral sliding gestures are detected;

the pointing mode is deactivated when lateral sliding gestures are detected;

the pointing mode is activated when mouse clicking activity chords are detected; and

the pointing mode is deactivated when mouse clicking activity chords are detected.

11. The touch sensitive surface of claim 4 wherein the key edge ridges comprise a plurality of distinct bars or dots.

12. The touch sensitive surface of claim 1 wherein the key edge ridges comprise tactile feedback mechanisms located at a center of one or more key regions.

13. The touch sensitive surface of claim 2 wherein the key edge ridges comprise tactile feedback mechanisms located at a center of one or more key regions.

14. The touch sensitive surface of claim 12 wherein the tactile feedback mechanisms are selected from the group consisting of: a single raised dot, two raised dots arranged horizontally, two raised dots arranged vertically, a raised bar oriented horizontally, and a raised bar oriented vertically.

15. The touch sensitive surface of claim 12 wherein the tactile feedback mechanisms comprise:

a first tactile feedback mechanism for each home row key; and

an additional tactile feedback mechanism distinct from the first tactile feedback mechanism for at least one key adjacent a home row key or at least one peripheral key.

16. The touch sensitive surface of claim 15 wherein the additional tactile feedback mechanism comprises:

a second tactile feedback mechanism for at least one key adjacent the home row keys; and

a third tactile feedback mechanism for at least one peripheral key;

wherein the second and third tactile feedback mechanisms are distinct from each other.

17. The keyboard of claim 16 wherein:

the second feedback mechanism is provided for each key adjacent a home row key; and

the third feedback mechanism is provided for each peripheral key.

\* \* \* \* \*