alloy **32** can be used. For example, the shape memory alloy **32** can take the form of a thin ribbon or other suitable shape. Further still, other numbers of shape memory alloy **32** can be used.

[0045] Those skilled in the art will appreciate that shape memory alloys assume different shapes at distinct temperatures as a result of a temperature-dependent martensitic phase transformation from martensite at lower temperatures to austenite a higher temperatures. The temperature at which the phase transformation occurs is dependent on the alloy. The shape memory alloy in the present embodiment includes wires **32***a*, **32***b*, **32***c*, **32***d*, which can be muscle wires. Muscle wires are thin, highly processed strands of nickel-titanium alloy, commonly referred to as Nitinol or Flexinol. The wires **32***a*, **32***b*, **32***c*, **32***d* have two, temperature-dependent shapes including an extended spring-shaped room temperature state indicated by the numerals **32***a*, **32***b* and **32***d* in FIG. **4**A, and a compressed spring-shaped heated state indicated by the numeral **32***c* (not to scale). Thus, the length of each of the coil springs of wire **32***a*, **32***b*, **32***c*, **32***d* is reduced or shrinks in the heated state. When the wire returns to room temperature, the length of the coil spring of wire **32***a*, **32***b*, **32***c*, **32***d* returns to the extended length. The wire **32***c* is shown in the compressed spring-shaped heated state in FIG. **4**A and in the extended spring-shaped room temperature state in FIG. **4**B.

[0046] When electric current is conducted through any or all of the coil spring-shaped wires **32**, the respective wire heats and undergoes the phase transformation to the compressed spring-shaped heated state as shown by the wire **32***c* in FIG. **4**A. The wire **32***c* in FIG. **4**A is referred to as being activated as a result of electric current conduction, indicated by the arrow labeled Io, causing the change to the compressed spring-shaped heated state. When electric current flow stops, the wire **32***c* cools and returns to the original phase, thereby returning to the extended spring-shaped room temperature state as shown in FIG. **4**B. Those skilled in the art will appreciate that the current required to activate a wire from room temperature is dependent on the alloy and the diameter of the wire. One suitable shape memory alloy is a muscle wire, as indicated. According to one exemplary embodiment, the wires **32***a*, **32***b*, **32***c*, **32***d* are muscle wires with a diameter in the range of 0.04 mm to 1 mm, which are formed into coil springs having a coil diameter in the range of 2 mm to 10 mm. As indicated above, the shape memory alloy is not limited to coil springs as other shapes of shape memory alloy can be used. For example, a thin ribbon or other suitable shape that, when current flow through, changes to a compressed state and, when current stops flowing through, returns to an extended state.

[0047] As described hereinabove, the X and Y co-ordinates of a user touch on the touch screen display **24** are determined at the controller **30** and the co-ordinates of the touch are used by the processor **40** to determine the associated option or command selected by the user. The co-ordinates of the touch are also used by the processor **40** to determine which of the four wires **32***a*, **32***b*, **32***c*, **32***d* to activate by completing a circuit to cause current flow, resulting in a change in shape, from the extended spring-shaped room temperature state to the compressed spring-shaped heated state. The one or ones of the four wires **32***a*, **32***b*, **32***c*, **32***d* that are activated is dependent on the location of the user-touch.

[0048] In one example, the touch-sensitive input surface **28** is effectively divided into five areas **90**, **91**, **92**, **93**, **94**, as shown in ghost outline in FIG. **5**. It will be appreciated that these divisions are not shown on the touch screen display **24**. When the X and Y co-ordinates of a user-touch are determined to fall within, for example, the area **90** shown in the top left hand corner of the touch screen display **24** of the portable electronic device **20** in the view of FIG. **5**, the wire **32***a* is activated as the processor **40** completes the circuit causing current flow through the wire **32***a*, resulting in a change in shape from the extended spring-shaped room temperature state to the compressed spring-shaped heated state. The change in shape results in movement of the touch screen display **24** as the wire **32***a* connected between the base **22** and the touch screen display **24** shrinks in length.

[0049] If, however, the X and Y co-ordinates are determined to fall within, the area **92**, shown in the top right hand corner of the touch screen display **24** of the portable electronic device **20** in the view of FIG. **5**, the wire **32***b* proximal to the top right hand corner of the portable electronic device **20** in the view of FIG. **5**, is activated as the processor **40** completes the circuit causing current flow through the wire **32***b*, resulting in a change in shape from the extended spring-shaped room temperature state to the compressed spring-shaped heated state. The change in shape results in movement of the touch screen display **24** as the wire **32***b* connected between the base **22** and the touch screen display **24** shrinks in length.

[0050] When the X and Y co-ordinates are determined to fall within the area **92**, shown in the bottom right hand corner of the touch screen display **24** of the portable electronic device **20** in the view of FIG. **5**, the wire **32***c* proximal to the bottom right hand corner of the portable electronic device **20** in the view of FIG. **5**, is activated as the processor **40** completes the circuit causing current flow through the wire **32***c*, resulting in a change in shape from the extended spring-shaped room temperature state to the compressed spring-shaped heated state. The change in shape results in movement of the touch screen display **24** as the wire **32***c* connected between the base **22** and the touch screen display **24** shrinks in length.

[0051] When the X and Y co-ordinates are determined to fall within the area **93**, shown in the bottom left hand corner of the touch screen display **24** of the portable electronic device **20** in the view of FIG. **5**, the wire **32***d* proximal to the bottom left hand corner of the portable electronic device **20** in the view of FIG. **5**, is activated as the processor **40** completes the circuit causing current flow through the wire **32***d*, resulting in a change in shape from the extended spring-shaped room temperature state to the compressed spring-shaped heated state. The change in shape results in movement of the touch screen display **24** as the wire **32***d* connected between the base **22** and the touch screen display **24** shrinks in length.

[0052] When the X and Y co-ordinates are determined to fall within the area **94**, shown in the area that includes the center of the touch screen display **24** of the portable electronic device **20** in the view of FIG. **5**, all four wires **32***a*, **32***b*, **32***c*, **32***d* are activated as the processor **40** completes the circuits for each, causing current flow through the wires **32***a*, **32***b*, **32***c*, **32***d*, resulting in a change in shape from the extended spring-shaped room temperature state to the compressed spring-shaped heated state. The change in shape results in movement of the touch screen display **24** as the wires **32***a*, **32***b*, **32***c*, **32***d* connected between the base **22** and the touch screen display **24** each shrink in length.

[0053] Reference is now made to FIGS. **6** to **8** and **9** to describe a method of controlling an electronic device **20**