trical terminals, the shape memory alloy element is heated. After reaching a critical temperature, the shape memory alloy element changes length. This moves the piston from one position in the cylinder to another position. The movement of the cylinder creates a force which the pump can use to alter the actuation element profile (**108**). After the voltage is removed, the shape memory alloy element cools and recovers its original length. Thus, the piston returns to the initially end position.

[0044] Turning to FIG. **7**, illustrated therein is one embodiment of an actuation element profile driver comprising an electromagnetic driver **700**. The electromagnetic driver **700** comprises a fixed pivot **701**, a first electromagnet **702** with a first charge, a second electromagnet **704** with a first charge, and an actuation element **706**. The first electromagnet **702** and the second electromagnet **704** are connected at fixed distances to both the fixed pivot **701** and the actuation element **706**.

[0045] Initially both holding the first charge, the first electromagnet **702** and the second electromagnet **704** repel each other, thus creating a first distance **708** between the fixed pivot **701** and the actuation element **706**. In response to a device event **710**, one of the electromagnets is given an opposite charge from that which it initially held. The first electromagnet **702** and the second electromagnet **704**, now holding opposite charges, attract each other. This attraction causes the actuation element **706** to extend distally outward to a second distance **712** from the fixed pivot **701**.

[0046] In one embodiment, distal extension of the actuation element (**106**) is implemented by an actuation element profile motor. The actuation element motor may comprise, but is not limited to, a cam and follower motor, a worm-gear motor, a pivot and retraction motor or a bellows device. Turning briefly to FIG. **8**, illustrated herein is one embodiment of an actuation element profile motor comprising a can and follower motor **800**. The cam **802** and follower **804** are illustrated. At a first position **808**, the follower **804** rests on the inherently circular surface of the cam **802** and the follower **804** is in contact with an actuation element **806**.

[0047] In response to a device event **810**, the cam **802** rotates to a second position **812**. At the second position, the follower **804** rests on the inherently oblong surface of the cam **802**, thus distally extending the follower and in turn the actuation element **806**. In one embodiment, upon reaching the second position **812**, the cam **802** rotates back to the first position **808**, thereby returning the follower **804** its original position as well. In one embodiment, the follower **804** comprises a spring configured to keep the follower **804** in contact with the cam **802** at all times. The actuation element **806** may remain in an actuated position even though the follower has returned to its initial position. The actuation element **806** may return to its initial position when depressed by a user.

[0048] Turning to FIG. **9**, illustrated therein is one embodiment of an actuation element **906** configured to alter the actuation element profile by changing an actuation element form factor. In FIG. **9**, altering the actuation element profile by changing its actuation element form factor includes manipulating the surface characteristics of the actuation element **906**. There are many methods for manipulating the surface of the actuation element **906**, including the application of heat, the application of an electrical charge, or inflation of the actuation element **906**.

[0049] In one embodiment, changing the actuation element form factor involves a raised symbol **902** appearing on the surface of the actuation element **906**. By way of example, an actuation element may comprise a balloon-like and/or an elastic surface with a play button symbol molded into the balloon-like surface. At an initial state, the actuation button is deflated, thereby preventing the play button symbol from being visible. In response to a device event, air is pumped into the actuation button and the balloon-like surface inflates. The play button symbol expands past the circumference of the actuation button and become visible.

[0050] In one embodiment, the raised symbol **902** comprises a plurality of raised bumps **904**. One example of an embodiment implementing a plurality of raised bumps is a method utilizing a bistable material as the surface of the actuation element **906**. One example of such a method, as described above, involves covering the actuation element **906** with a layer of martensite. A plurality of micrometer dents, placed in a grouping resembling a symbol describing functionality, is imprinted onto the surface of the martensite actuation element **906**. A flattening technique using mechanical polishing call "planarizing" is used to smooth the martensite surface such that the dents are not visible. In response to a device event **910**, the martensite is heated to a critical temperature when the martensite becomes austenite. Upon becoming austenite, the plurality of dents becomes a plurality of raised bumps **904** on the surface of the actuation element **906**. When the austenite is cooled to martensite, in one embodiment, upon a user depressing the actuation button **906**, the plurality of raised bumps **904** disappear.

[0051] In the foregoing specification, specific embodiments of the present invention have been described. However, one of ordinary skill in the art appreciates that various modifications and changes can be made without departing from the scope of the present invention as set forth in the claims below. Thus, while preferred embodiments of the invention have been illustrated and described, it is clear that the invention is not so limited. Numerous modifications, changes, variations, substitutions, and equivalents will occur to those skilled in the art without departing from the spirit and scope of the present invention as defined by the following claims. Accordingly, the specification and figures are to be regarded in an illustrative rather than a restrictive sense, and all such modifications are intended to be included within the scope of present invention.

What is claimed is:

1. An electronic device comprising a housing having a user interface, the user interface having an actuation element for controlling at least one device function, wherein the actuation element is configured to alter an actuation element profile relative to the housing in response to a device event while retaining an actuation element actuation state.

2. The electronic device of claim **1**, wherein the user interface comprises a plurality of actuation elements, wherein the actuation element configured to alter the actuation element profile is one of the plurality of actuation elements and is user definable.

3. The electronic device of claim **1**, wherein the housing comprises a deformable cover layer that covers at least a portion of the housing, wherein the actuation element configured to alter the actuation element profile is disposed beneath the deformable cover layer so as to deform the deformable cover layer upon changing the actuation element profile.

4. The electronic device of claim **1**, wherein the alteration in the actuation element profile prompts a user for at least one of a plurality of responses.