phone calls on a phone. However, any other suitable interaction between the device **10** and the tactile interface layer **100** may be used.

3. Providing a User Interface

[0034] As described above, the user interface provided in Step S**110** to retrieve a user input may be provided on the tactile interface layer **100**, which may allow the user to have a direct tactile comparison between different available settings for the tactile interface layer **100**; on both the device **10** and the tactile interface layer **100**, which may allow the device **10** and the tactile interface layer **100** to cooperatively provide a user interface for the user; on the device **10**; or in any other suitable arrangement. The device **10** and/or the tactile interface layer **100** preferably enters a "customization mode" wherein the user is prompted to provide inputs for user preferences that preferably do not register as any other kind of input. The user interface tactile, visual, audible, or in any other suitable kind of media.

[0035] In a first variation of the user interface, the interface is provided on the tactile interface layer **100**. In a first example of the user interface of the first variation, the user interface may provide a plurality of expanded cavities **125** and/or **12513** that result in a plurality of deformed particular regions **113** on the tactile interface layer **100**, wherein each of the plurality of deformed particular regions **113** is of a different characteristic such as a different degree of firmness and/or a different shape. The user then selects the particular region **113** that best fits their preferences and the selection is detected by the sensor **140** and sent to a processing unit in the tactile interface layer **100** and/or a processing unit in the device **10**.

[0036] In a second example of the first variation, the user interface may provide a deformed particular region **113** in the form of a slider on the tactile interface layer **100**. The slider may include a plurality of regions, each region representing a different degree of a characteristic such as firmness, size, and/or distance between deformations. The user may slide their finger along the slider to experience the various degrees of the characteristic and select the desired degree. The selection may be inputted by providing force at the location along the slider of the degree they select, but may alternatively be a selection inputted adjacent to the slider or any other suitable location or kind of input.

[0037] In a third example of the first variation, the user interface may provide a deformed particular region **113** in the form of a slider and another particular region **113** in the form of an "example region" on the tactile interface layer **100**. The user may adjust the position of the slider to adjust the option for adjustment demonstrated by the "example region." The user may tactilely feel the example region as they adjust the slider and then select their desired adjustment. The slider is preferably of a uniform characteristic to decrease the tactile variations felt by the user and to potentially decrease confusion, but may alternatively emulate the adjustment demonstrated by the example region to allow the user to tactilely feel the adjusted characteristic on more than one location or shape of deformed particular region.

[0038] In a fourth example of the first variation, the user interface may provide a deformed particular region **113** that transitions in between different degrees of a characteristic such as firmness, or size and the user selects the desired degree. The transitions are preferably cyclic and repeat the range of degrees for the user to experience as many times as necessary before making a selection. The user may input the selection as the deformed particular region **113** is demonstrating the various available options, but may alternatively input the selection after the deformed particular region **113** has demonstrated the available options. The rate of demonstration by the deformed particular region **113** is preferably at a slow rate to allow the user to adequately examine the option for their decision, but may alternatively be an adjustable rate or any other suitable rate.

[0039] In a fifth example of the first variation, the user interface may provide a plurality of cavities **125** that may correspond to, for example, a keyboard layout. A plurality of cavities **125** is expanded and a plurality of deformed particular regions of the surface **113** is presented to the user. The user may then select the set of deformed particular regions of the surface **113** that best fit their hand shape for a particular application as described in the second variation of a user preference of the second embodiment retrieved in Step S**134** and as shown in FIGS. **4***a* and **4***b*. In the example of a keyboard layout, the user may select the set of deformed particular regions that best match their hand size and shape, allowing for a more personalized keyboard layout for each individual user, potentially decreasing the risk of repetitive stress disorder that may result from arranging the hand of the user in an uncomfortable and stressful position. In the example of the keyboard layout, the user may be presented with a plurality of options for the location of the deformed particular region that corresponds to each keyboard key. The options for the location of each key may be presented concurrently with the options for every other key in the keyboard, but may alternatively be presented to the user one after the other. However, any other suitable method to allow the user to select their desired location of each key may be used. Once the location of each key is determined, the user may then be prompted to select the desired height and/or firmness of each key, allowing the user interface system to accommodate to the natural angle of the user's hands, further decreasing the potential of repetitive stress syndrome.

[0040] In a second variation of the user interface, the user interface is provided on the device **10**. This variation is particularly applicable in retrieving a user preference for the interaction of the device and the tactile interface layer S**134**. The user interface as provide on the device **10** is preferably applied to a device **10** that includes a display **150** that provides an image to communicate to the user, but may alternatively be applied to any other suitable kind of device, for example, a device that includes a speaker to communicate with the user, or a device that provides a vibration to communicate with the user. In a first example of the second variation of the user interface, as shown in FIG. **7**, the user interface may provide a series of check boxes where the user may choose options for the actuation of the deformation of the particular region **113** (such as to retrieve a user preference for the actuation of a deformation in the third variation of the user preference of the second embodiment). As shown in FIG. **7**, the user may select to actuate the deformation of the particular region **113** when the "place call," "receive call," "email," etc, application of the device **10** is actuated. Additionally, the user may provide a preference for the arrangement of the particular region **113** that is to be deformed, for example, a QWERTY keyboard or a numeric keypad.

[0041] In a second example of the second variation, as shown in FIG. **8**, the user interface may provide an interface on the device **10** that allows the user to provide a preference for the operation of the tactile interface layer **100**. In other