

required in order to put the item to a wastebasket and items defined to be important may require stronger force than those items that have not been defined as important.

[0060] FIG. 3*a* shows an electronic device **300** according to an embodiment of the invention. The electronic device can be, for example, a mobile communication terminal, a palmtop computer, a portable play station, or a combination of them. FIG. 3*b* shows the A-A section view of the electronic device. A user interface of the electronic device comprises a sensor element **301** that has a sensor surface **302**. A coordinate system **330** is shown for presentational purposes. The sensor element is arranged to produce a location indicator that is adapted to indicate a location of a spot of the sensor surface that is closest to an external object **320**. The location indicator can express, for example, x- and y-coordinates of the spot closest to the external object. The sensor surface can be a touch sensitive sensor surface, a capacitive sensor surface, or a combined capacitive and touch sensitive sensor surface. The user interface comprises force sensor equipment arranged to produce a force indicator **325** that is adapted to indicate a temporal change of an x-component of force directed to the sensor surface and a temporal change of a y-component of the force directed to the sensor surface. The force sensor equipment comprises a ring-sensor **303a** that is located around a rod **304** attached to the sensor element **301**. The rod is supported with a flexible joint **306** to a casing **309** of the electronic device. The user interface comprises a processor unit **305** that is arranged to control the electronic device on the basis of the location indicator and the force indicator. The user interface comprises a display screen **331** with the aid of which visual information can be shown.

[0061] In an electronic device according to an embodiment of the invention, the force sensor equipment comprises a torsional sensor **303b** arranged to detect torque caused by combined effect of the x-and y-components of the force directed to the sensor surface. The processor unit **305** is arranged to control the electronic device on the basis of the location indicator, the force indicator and the detected torque **326**. The rod **304** can be (or include) a force detector arranged to detect the z-component of the force directed to the sensor surface in which case the processor unit **305** is preferably arranged to control the electronic device on the basis of also the detected z-component of the force.

[0062] In an electronic device according to an embodiment of the invention, the sensor surface **302** is a capacitive sensor surface and the processor unit **305** is arranged to move a cursor **313** on the display screen as a response to a situation in which a distance between the external object **320** and the sensor surface **302** is less than a pre-determined limit value and the external object is moved in the xy-plane. The cursor is moved on the display screen according to movements of the external object in the xy-plane. The processor unit **305** is arranged to highlight a symbol **311** displayed on the display screen as a response to e.g. a situation in which the external object **320** touches the sensor surface and the cursor **313** is pointing to the symbol. In other words, a symbol pointed to by the cursor can be selected for further actions by touching the sensor screen. The processor unit **305** is arranged to move the symbol **311** on the display screen as a response to e.g. a situation in which the external object touches the sensor surface, the cursor **313** is pointing to the symbol, and the external object directs to the sensor surface force that has a component parallel with the sensor surface and strength of the said component exceeds a pre-determined limit. The processor unit

305 is arranged to control the electronic device to execute a function related to the symbol **311** as a response to e.g. a situation in which a pre-determined change is detected in direction of the resultant of the x-and y-components of the force directed to the sensor surface and the cursor **213** is pointing to the symbol.

[0063] In an electronic device according to an embodiment of the invention, the sensor surface **302** is a touch sensitive sensor surface and the processor unit **305** is arranged to move the cursor **313** on the display screen as a response to a situation in which the external object **320** touches the sensor surface and the external object is moved on the sensor surface. The cursor is moved on the display screen according to movements of the external object on the sensor surface. The processor unit **305** is arranged to highlight a symbol **311** displayed on the display screen as a response to e.g. a situation in which the resultant of the x-and y-components of the force directed to the sensor surface is rotated clockwise and the cursor **213** is pointing to the symbol. In other words, a symbol pointed to by the cursor can be selected for further actions by rotating the resultant force clockwise. The processor unit **305** is arranged to move the symbol **311** on the display screen as a response to e.g. a situation in which the symbol has been highlighted, the cursor **313** is pointing to the symbol, and the external object is moved along the sensor surface. The processor unit **305** is arranged to control the electronic device to execute a function related to the symbol **311** as a response to e.g. a situation in which the symbol has been highlighted, the cursor **313** is pointing to the symbol, and the resultant of the x-and y-components of the force directed to the sensor surface is rotated counterclockwise.

[0064] FIG. 4 shows an interface module **400** according to an embodiment of the invention. The interface module can be used as a building block of an electronic device that can be e.g. a mobile phone. The interface module comprises a sensor element **401** that has a sensor surface **402**. A coordinate system **430** is shown for presentational purposes. The sensor element is arranged to produce a location indicator that is adapted to indicate a location of a spot of the sensor surface that is closest to an external object. The interface module comprises force sensor equipment arranged to produce a force indicator that is adapted to indicate a temporal change of a first force component directed to the sensor surface and a temporal change of a second force component directed to the sensor surface, the first force component and the second force component being parallel with the sensor surface **402**. The force sensor equipment comprises one or more force detectors that are located in layer **451** and/or in layer **452**. The force detectors can be, for example, according to what is depicted in FIGS. 1*a-1h*. The interface module comprises a processor unit **405** that is capable of controlling an electronic device connected to the interface module on the basis of the location indicator and the force indicator. The interface module comprises connector pads **450** via which electrical signals can be conducted to/from the interface module.

[0065] In an interface module according to an embodiment of the invention, the force sensor equipment is arranged to produce another force indicator adapted to indicate a temporal change of a third force component directed to the sensor surface. The third force component is preferably the z-component of the force directed to the sensor surface. The processor unit is preferably arranged to control the electronic