A base with beveled edges for conductive toys is a base for toy objects, such as toy figurines and other handheld objects, that supports a toy object and encourages a user to grab the toy at or above a top portion of the base. In order to encourage a user to grab a toy that is supported by the base, the base includes a beveled edge, such as an inwardly sloping side wall. Thus, when used in conjunction with a touchscreen device, the base encourages a user to grab a toy supported thereon at a distance from the surface of the touchscreen device.
BASE WITH BEVELED EDGES FOR CONDUCTIVE TOYS

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority to and is based on U.S. patent application Ser. No. 61/748,990, filed Jan. 4, 2013, Attorney Docket No. 0621.2117P, entitled "A Base with Beveled Edges for Conductive Toys," the entire disclosure of which is incorporated herein by reference in its entirety.

FIELD OF THE INVENTION

[0002] The present invention relates to bases for toys, such as figurines and other handheld toy objects. More specifically, the present invention relates to a base with beveled edges for conductive toys. The present invention further relates to a base with beveled edges for toy figurines with at least one conductive portion.

BACKGROUND OF THE INVENTION

[0003] As touch-based or touchscreen technology has become more prevalent in society, the range of users for the same technology has dramatically increased. In fact, many touch-based tablets and apps are now created explicitly for children. Furthermore, some toys, entertainment devices, and other child or baby gear may also now include touch-based portions or surfaces. For example, any one of an activity table, a game board, a floor in a dollhouse, or an area of a playset could incorporate a capacitive surface. Regardless of the device it is included in, many touch-based surfaces are configured to detect an object (e.g. a stylus) or a user's finger (i.e., via either pressure or capacitance). In order to increase the play value of a touch-based device, some devices may even recognize some toy objects, as described in more detail in U.S. patent application Ser. No. 13/053,550, filed on Mar. 22, 2011 (US Publication No. 2011/0227871 A1), entitled Electronic Device and the Input and Output of Data, which is hereby incorporated by reference in its entirety. However, many of these devices cannot distinguish between contact from an object and contact from a user's finger, and thus will react to any contact made on the device.

[0004] Since many children are still developing their fine motor skills and strength, a child using a stylus or toy on a touchscreen may have a tendency to rest their arm or hand on the touchscreen while he or she holds the stylus or toy. This may cause the device to malfunction, at least in the eyes of the child, causing frustration and diminishing the play value of the touchscreen. Although some conductive toy objects include bases in order to stabilize the toy object when it is placed on the touchscreen, the toy object still has to be moved. When children move the toy, children have a tendency to grab the toy by this base to move it, which may result in multiple portions of the child's hand coming into contact with the touchscreen and again causing unintentional contact. Thus, a conductive toy with a base that discourages unintended contact with a touchscreen device is desired.

SUMMARY OF THE INVENTION

[0005] According to at least one embodiment of the present invention, a base with beveled edges for conductive toys includes a receiving surface for a user's hand, a contact surface for contacting a touchscreen device, and a sidewall extending between the receiving surface and the contact surface. The sidewall slopes inwards from the receiving surface to the contact surface such that a user is encouraged to grip the toy figure at either the receiving surface or a part of the toy figure.

[0006] In some embodiments of the above base with beveled edges, the receiving surface and contact surface are oval, but in other embodiments, the receiving surface and contact surface are each polygons with at least three sides. In some of the polygonal embodiments, the sidewall is a first sidewall and the base also includes at least one additional sidewall. Each of the at least one additional sidewalls extends between each of the at least three sides and the first sidewall and the at least one additional sidewalls slope inwards at a same angle. In still other embodiments of the above base with beveled edges, the contact surface also includes conductive portions configured to be identified by the touchscreen device.

[0007] In other embodiments, the base also includes a figurine extending upwardly from the receiving surface. In some of these embodiments, the base also includes at least one aperture extending through the contact surface and the figurine includes at least one conductive protrusion extending through the at least one aperture to allow the touchscreen device to identify the figurine.

[0008] According to at least one other embodiment of a base for a toy figure, the base includes a top surface, a bottom surface disposed within the outer periphery of the top surface, and a sidewall that extends between the top surface and bottom surface. The top surface includes conductive portions configured to be identified by a touchscreen device and the sidewall encourages a user to grab the base at its top surface or portions of the toy figure disposed thereabove.

[0009] In some embodiments of the above base for a toy figure, the top and bottom surfaces each include a periphery and the sidewall extends between the entire periphery of the top and the entire periphery of the bottom. Moreover, in some of these embodiments, the top and bottom surfaces are concentric circles of different radii and the top surface has a larger radius than the bottom surface, but, in other embodiments, the top and bottom surfaces are polygons with at least three sides and the sidewall is a first sidewall extending between a first side of the top and bottom surfaces. In the latter embodiment, the base also includes at least two additional sidewalls that extend between each of the remaining sides of the top and bottom. In some of these embodiments, the sidewalls extending between each of the at least three sides slopes inwards at a same angle.

[0010] In yet other embodiments of the above base for a toy figure, the base is integrally formed with a figurine and the figurine extends upwardly from the top surface.

[0011] According to at least one other embodiment of a base for a toy figure, the base includes a contact surface configured to rest on a touchscreen device, a sidewall, and a conductive pathway. The contact surface includes a peripheral edge, the sidewall extends upwardly and exteriorly from the peripheral edge of the contact surface, and the conductive pathway extends through the contact surface such that the base may serve as a conductive conduit between a user touching the toy figure and the touchscreen device.

[0012] In some embodiments of the above base for a toy figure, the base also includes a receiving surface disposed above the contact surface. The receiving surface is configured
to receive a toy figurine and the receiving surface includes an outer periphery that the contact surface does not extend beyond.

[0013] In some of the above embodiments, the sidewall extends upwardly around the entire peripheral edge of the contact surface and extends between the peripheral edge of the contact surface and a non-peripheral edge of the receiving surface such that at least a portion of the receiving surface extends beyond the sidewall. In other implementations of the above embodiments, the toy figurine is received on a first side of the receiving surface and the receiving surface also includes protrusions extending from a second side that is opposite the first side and substantially adjacent the contact surface. Moreover, in some of these embodiments, the conductive pathway also includes at least one aperture formed in the contact surface, such that the protrusions may extend through the at least one aperture, thereby conductively coupling the figurine to the touchscreen device. In still further implementations of the above embodiment, the receiving surface and contact surface are oval, but in other embodiments, the receiving surface and contact surface are each polygons with at least three sides.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] FIG. 1 shows a perspective view of an exemplary embodiment of a base with beveled edges for conductive toys and a figurine mounted thereon sitting on a touchscreen device, in accordance with the present invention.

[0015] FIGS. 1A-B depict a bottom perspective view of the base of FIG. 1.

[0016] FIG. 2 shows a front perspective view of another exemplary embodiment of a base with beveled edges for conductive toys with another toy figurine mounted thereon, in accordance with the present invention.

[0017] FIG. 3 shows a perspective view of a portion of the exemplary embodiment shown in FIG. 2.

[0018] FIG. 3A depicts a front view of a portion of the exemplary embodiment of FIG. 3.

[0019] FIG. 3B depicts a side view of a portion of the exemplary embodiment of FIG. 3.

[0020] FIG. 4 shows an exploded perspective view of another exemplary embodiment of a base with beveled edges for conductive toys in accordance with the present invention.

[0021] FIG. 5 shows a front perspective view of another exemplary embodiment of a base with beveled edges for conductive toys in accordance with the present invention.

[0022] Like reference numerals have been used to identify like elements throughout this disclosure.

DETAILED DESCRIPTION OF THE INVENTION

[0023] Generally referring to FIGS. 1-5, at least one exemplary embodiment of a base with beveled edges for conductive toys is shown. In a preferred embodiment, the base is used in conjunction with a toy figurine, however, it is to be understood that a base with beveled edges for conductive toys may be used, and function as intended without a toy figurine mounted thereon. Furthermore, the term “figurine” is not intended to be limiting, as a base with beveled edges for conductive toys may be used with any desirable conductive toy, such as toy animals, people, superheroes, creatures, and vehicles, as desired. Thus, it is to be understood that the toy figurines shown in FIGS. 1-5, such as the knight of FIG. 1 and the wizard of FIG. 2, are merely exemplary.

[0024] Referring now to FIG. 1, a toy figurine 10 is shown mounted on a base 100, and the base 100 is resting atop of a touchscreen 20. In this exemplary embodiment, the toy figurine 10 is actually formed together with base 100, but in other embodiments, figurine 10 may be mounted or coupled, either permanently or removably, to base 100, as desired. The figurine 10 may also extend beyond the periphery of base 100, as desired, so long as the base is able to act as platform between a touchscreen device and the toy figurine 10. For example, in the exemplary embodiment shown in FIG. 1, the appendages of the figurine 10 are configured to extend beyond the periphery of base 100, but base 100 is still disposed substantially between touchscreen 20 and figurine 10. Preferably, the figurine 10 may be able to rest atop of the platform without any external support or stabilization.

[0025] Now referring to FIGS. 1A-B, a bottom perspective view of the base 100 from FIG. 1 may be depicted. Since base 100 may be disposed substantially between the figurine 10 and a touchscreen 20, the base 100 may be conductive, include conductive portions or pathways, or include apertures to allow select conductive portions or pathways of or associated with the figurine 10 to contact the touchscreen 20. For example, in FIG. 1A, base 100 may include apertures 130 which are configured to accept conductive portions 140 of figurine 10 in order to facilitate conductive recognition. However, in other embodiments, and as seen in FIG. 1B (and better seen in FIG. 4), the conductive portions 140 may be a separate part that is installed within the base 100 and corresponds to the FIG. 10 resting atop of the base 100, so that the figurine 10 may be identified when disposed on the touchscreen 20 (via the capacitance from a user’s hand traveling through the figurine 10 to the conductive portions 140).

[0026] Accordingly, while the base 100 prevents the majority of figurine 10 from contacting touchscreen 20, portions of or associated with figurine 10 may still be able to contact touchscreen 20 so that touchscreen 20 may at least recognize that figurine 10 is placed thereon (via the capacitance from a user’s hand traveling through the figurine 10). However, despite the use of the term “aperture,” in some embodiments the apertures 130 may not actually be apertures and, instead, apertures 130 may simply be conductive portions or pathways of base 100. In these embodiments, the apertures 130 may allow touchscreen 20 to recognize a touch when a base 100 is placed thereon regardless of the conductive properties of the figurine 10.

[0027] Now turning to FIG. 2, another exemplary embodiment of a base with beveled edges for conductive toys is shown. As can be seen in FIG. 2, base 100 includes a top 102, a bottom 104 and a side wall 106 extending therebetween. The top 102 and bottom 104, which may also be referred to as the receiving surface 102 and contact surface 104, respectively, may be shaped and sized as desired so long as the top 102 and bottom 104 are configured so that the perimeter of bottom 104 does not extend beyond the perimeter of top 106, which may also be referred to as the periphery of top 106. Due to this configuration, side wall 106 slopes inwardly from top 102 to bottom 104 on all sides, regardless of the shapes of top 102 and bottom 104. In other words, base 100 has a beveled edge provided by an inwardly-angled side wall 106.

[0028] Still referring to FIG. 2, the base 100 provides an example of how side wall 106 is inwardly sloped such that it provides base 100 with a beveled edge. In the exemplary embodiment of FIG. 2, the front portion of top 102 has a length of “d1” while the front portion of bottom 104 has a
length of "d2." Since d2 is smaller than d1, the bottom wall 104 may be oriented between the outer edges of top wall 102 such that side wall 106 slopes inwardly from the edges of top 102 to the edges of bottom 104, at least along the adjacent sides. While these exemplary dimensions only illustrate how certain sides of base 100 slope inwardly, this example is intended to be representative of every side of the base 100 shown in FIG. 2.

[0029] Turning now to FIGS. 3, 3A, and 3B, the base 100 of FIG. 2 is shown from a closer perspective view. As can be seen, in this particular embodiment, side wall 106 includes a front face 106a and a side face 106b, each of which extend from a top edge 108 that is adjacent to top 102 to a bottom edge 110 that is adjacent to bottom 104. As seen in FIGS. 3A and 3B, due to the inward slope each of faces 106a, 106b, base 100 is substantially shaped as an isosceles trapezoid. Front face 106a has a top of length d1 and a bottom of length d2 while side face 106b has a top of length "d3" and a bottom of length "d4," with d1 and d3 being greater than d2 and d4, respectively. Thus, provided that the bottom bases are disposed between the edges of the top bases of faces 106a, 106b, side wall 106 will slope inwardly on both faces 106a and 106b.

[0030] Still referring to FIGS. 3, 3A, and 3B, in this embodiment, an angle θ is formed between the vertical axis extending from the edges of the tops of faces 106a, 106b and the legs of each face 106a, 106b. In other words, sidewalk 106 is sloped inwardly at angle θ. However, counter-intuitively, the angle θ shown on face 106a (FIG. 3A) defines the slope of face 106b, while the angle θ shown on face 106b (FIG. 3B) shows the slope of face 106a. Regardless, in this embodiment, the angles θ are the same, that is, the bevel or inward slope of side wall 106 is substantially the same around its entire periphery. However, it is to be understood that in other embodiments, the angles may be substantially different on different sides, provided that the angle forms a desirable beveled edge. Regardless, an inward slope serves to discourage a user from grabbing the toy on base 100 and, instead, encourages a user to grab the object by the toy FIG. 10, thereby encouraging a user to move his or her hand away from the touchscreen 20 in order to prevent unwanted or accidental touches.

[0031] Referring next to FIG. 4, one exemplary embodiment of a conductive base including a separately formed conductive portion 140 is shown. As can be seen, in this particular embodiment, the base 100 is collectively formed by a top 102 that is formed together with a figure 10 and a bottom 104 that is formed together with an inwardly-sloped sidewalk 106. The bottom also includes apertures 130 so that the conductive portion 140 may contact a support surface or touchscreen device that the base 100 is placed on. By forming the base 100 in this manner, the base 100 provides an interior cavity into which a conductive portion 140 may be inserted. Thus, in some embodiments, the conductive portion 140 could be easily swapped out, thereby causing the touchscreen to associate different identities or characters with the same figure 10. The identities may be determined by the arrangement or number of conductive portions included in conductive portions 140, which, as mentioned above, is described in more detail in U.S. patent application Ser. No. 13/053,550.

[0032] Now referring to FIG. 5, another exemplary embodiment of a base with beveled edges for conductive toys is shown. In this embodiment, the base 100 is rounded and includes a side wall 106 extending between a bottom 104 and a top 102 that are concentric circles with radii of lengths “r2” and “r1.” Again, these lengths result in a side wall 106 that is offset from the vertical axis at an angle θ, such that the side wall is inwardly sloped, again discouraging users from grabbing the toy by its base 100. Although this embodiment provides an angle θ, identical to the angle seen in the embodiments of FIGS. 2-3, it is to be understood that side wall 106 may be sloped inwardly at any suitable angle, provided that “suitable” simply denotes an angle which discourages a user from grabbing the side wall 106. Furthermore, while the exemplary embodiment shown in FIG. 5 is circularly shaped, it is to be understood that this shape merely serves as an example that base 100 can be shaped in any desirable shape, provided it includes a beveled edge (i.e. an inwardly sloping side wall 106).

[0033] Referring again to all of FIGS. 1-5 generally, and as mentioned above, the beveled edge of the base 100, which has been referred to in the alternative as an inwardly sloping side wall 106, discourages a user from grabbing an object or toy to be used with a touchscreen device by its base. The beveled edge renders the base uncomfortable and, thus, may urge a user’s hand upwards to grasp the object on a more comfortable part or portion, such as the figure. At very least, the beveled edges may simply encourage a user to grab an object with a base 100 by the top surface 102 or top edge 110 of the base 100 in order to move a toy or object on a touchscreen. Any of these grabbing locations moves a user’s hand substantially away from the touchscreen, thereby substantially eliminating accidental touches and unwanted inputs and allowing a user to use a toy object on a touchscreen device with minimal malfunctions.

[0034] It is to be understood that a base with beveled edges for conductive toys may be fabricated from any suitable material, or combination of materials, such as plastic, foamed plastic, wood, cardboard, pressed paper, metal, supple natural or synthetic materials including, but not limited to, cotton, elastomers, polyester, plastic, rubber, derivatives thereof, and combinations thereof. Suitable plastics may include high-density polyethylene (HDPE), low-density polyethylene (LDPE), polyethylene, acrylonitrile butadiene styrene (ABS), polycarbonate, polyethylene terephthalate (PET), polypropylene, ethylene-vinyl acetate (EVA), or the like. Suitable foamed plastics may include expanded or extruded polystyrene, expanded or extruded polypropylene, EVA foam, derivatives thereof, and combinations thereof.

[0035] It is also to be understood that terms such as “left,” “right,” “top,” “bottom,” “front,” “rear,” “side,” “height,” “length,” “width,” “upper,” “lower,” “interior,” “exterior,” “inner,” “outer” and the like as may be used herein, merely describe points or portions of reference and do not limit the present invention to any particular orientation or configuration. Further, the term “exemplary” is used herein to describe an example or illustration. Any embodiment described herein as exemplary is not to be construed as a preferred or advantageous embodiment, but rather as one example or illustration of a possible embodiment of the invention.

[0036] Although the disclosed inventions are illustrated and described herein as embodied in one or more specific examples, it is nevertheless not intended to be limited to the details shown, since various modifications and structural changes may be made therein without departing from the scope of the inventions and within the scope and range of equivalents of the claims. In addition, various features from
one of the embodiments may be incorporated into another of the embodiments. Accordingly, it is appropriate that the appended claims be construed broadly and in a manner consistent with the scope of the disclosure as set forth in the following claims.

What is claimed is:

1. A base for a toy figure containing a conductive path comprising:
   a receiving surface for a user’s hand;
   a contact surface for contacting a touchscreen device; and
   a sidewall extending between the receiving surface and the contact surface, the sidewall sloping inwards from the receiving surface to the contact surface such that a user is encouraged to grip the toy figure at either the receiving surface or a part of the toy figure.

2. The base of claim 1, wherein the receiving surface and contact surface are oval.

3. The base of claim 1, wherein the receiving surface and contact surface are each polygons with at least three sides.

4. The base of claim 3, wherein the sidewall is a first sidewall and the base further comprises:
   at least one additional sidewall, each of the at least one additional sidewalls extending between each of the at least three sides, wherein the first sidewall and the at least one additional sidewalls slope inwards at a same angle.

5. The base of claim 1, wherein the contact surface further comprises:
   conductive portions, the conductive portions being configured to be identified by the touchscreen device.

6. The base of claim 1, further comprising:
   a figurine extending upwardly from the receiving surface.

7. The base of claim 6, further comprising:
   at least one aperture extending through the contact surface; and
   the figurine including at least one conductive protrusion extending through the at least one aperture to allow the touchscreen device to identify the figurine.

8. A base for a toy figure comprising:
   a top surface;
   a bottom surface disposed within the outer periphery of the top surface, wherein the bottom surface includes conductive portions configured to be identified by a touchscreen device; and
   a sidewall extending between the top surface and bottom surface that encourages a user to grab the base at its top surface or portions of the toy figure disposed thereabove.

9. The base of claim 8, wherein the top and bottom surfaces each include a periphery and the sidewall extends between the entire periphery of the top and the entire periphery of the bottom.

10. The base of claim 9, wherein the top and bottom surfaces are concentric circles of different radii, the top surface having a larger radius than the bottom surface.

11. The base of claim 9, wherein the top and bottom surfaces are polygons with at least three sides, the sidewall is a first sidewall extending between a first side of the top and bottom surfaces, the base further comprising:
   at least two additional sidewalls extending between each of the remaining sides of the top and bottom.

12. The base of claim 11, wherein the sidewalls extending between each of the at least three sides slopes inwards at a same angle.

13. The base of claim 8, wherein the base is integrally formed with a figurine, the figurine extending upwardly from the top surface.

14. A base for a toy figurine comprising:
   a contact surface configured to rest on a touchscreen device, the contact surface including an peripheral edge;
   a sidewall extending upwardly and exteriorly from the peripheral edge of the contact surface; and
   a conductive pathway extending through the contact surface such that the base may serve as a conductive conduit between a user touching the toy figurine and the touchscreen device.

15. The base of claim 14, further comprising:
   a receiving surface disposed above the contact surface, the receiving surface being configured to receive a toy figurine and the receiving surface including an outer periphery, wherein the contact surface does not extend beyond the outer periphery of the receiving surface.

16. The base of claim 15, wherein the sidewall extends upwardly around the entire peripheral edge of the contact surface and extends between the peripheral edge of the contact surface and a non-peripheral edge of the receiving surface such that at least a portion of the receiving surface extends beyond the sidewall.

17. The base of claim 15, wherein the toy figurine is received on a first side of the receiving surface and the receiving surface further comprises:
   protrusions extending from a second side, the second side being opposite the first side and substantially adjacent the contact surface.

18. The base of claim 17, wherein the conductive pathway comprises:
   at least one aperture formed in the contact surface, such that the protrusions may extend through the at least one aperture, thereby conductively coupling the figurine to the touchscreen device.

19. The base of claim 15, wherein the receiving surface and contact surface are oval.

20. The base of claim 15, wherein the receiving surface and contact surface are each polygons with at least three sides.