instead of using a stylus on a touch-sensitive screen. For example, the joystick **301** in **FIG. 3**, shown as a freestanding joystick although it need not be, has a stick **302** that is constrained to move within a square mounting area **303**. The same character forms, shown for example in **FIG. 2**, can be made by moving the stick **302** within the square mounting area **303**. Pressing down on a button on top of the stick **302**, or a separate button, could be used to signal the beginning and end of strokes. Another way to segment strokes is to wait until there is no movement for a predetermined period of time (such as 100 milliseconds). Alternatively, when a self-centering joystick is used, segmentation is possible by detecting when the stick snaps-to-center, which can be sensed by watching the joystick for two consecutive points in the center.

[**0062**] As shown in **FIG. 4**, a joystick **402** could be mounted on a game controller **401**, or as shown in **FIG. 5**, a joystick **502** might be part of a mobile phone **501**. It will be understood by those skilled in the art that this joystick could be mounted on any other kind of handheld device, such as a pager, a remote control, a calculator, etc. The recognition algorithm and character forms could remain the same in all cases.

[**0063**] Another advantage of the present invention is that it is very easy to allow the users to create their own forms for characters. A user can go into a special mode for doing customizations, and make the desired pattern only once; the system then records and remembers the sequence of corners that were hit. Then the user can specify the result of performing that pattern, which may be the entry of a character, or it may be a shortcut for entering a sequence of characters or for giving a command to the system (e.g., to launch a favorite application). In this way, the users can customize the text entry technique to their own preferences. This is an advantage over existing unistroke techniques (such as Graffiti), since most techniques do not allow user-defined strokes. If they did, they would require numerous training examples, not just one, since they are full-path pattern matchers.

[**0064**] While the invention has been particularly shown and described with reference to the preferred embodiments thereof, it will be understood by those skilled in the art that various changes in form and detail may be made therein without departing from the spirit and scope of the invention. Although numerous advantages of the present invention are described, it is not necessary that the subject matter set forth in the following claims embody all of the advantages described

What is claimed is:

1. A character recognition method, comprising:

determining a sequence of corner hits within a guide; and

identifying a character based on said sequence of corner hits.

2. The method of claim 1 wherein each of said sequences of corner hits defines a single stroke, and wherein each single stroke is representative of one of a letter, number, punctuation or mode.

3. The method of claim 2 additionally comprising identifying a character as being upper case when said stroke representative of said character ends in a predetermined corner.

4. The method of claim 2 additionally comprising detecting loss of contact with a touch sensitive surface, said loss of contact indicating the end of a stroke.

5. The method of claim 2 additionally comprising detecting the actuation of a switch, said actuation indicating the end of a stroke.

6. The method of claim 2 additionally comprising detecting lack of movement of a joystick for a predetermined period of time, said lack of movement indicating the end of a stroke.

7. The method of claim 6 wherein said detecting lack of movement includes detecting the joystick at two identical positions within said predetermined period of time.

8. The method of claim 7 wherein said points correspond to center points.

9. The method of claim 1 wherein said identifying a character is comprised of comparing the determined sequence of corner hits to data representative of a plurality of stored sequences of corner hits, selecting one of the stored sequences of corner hits based on said comparing, and outputting a character linked to said selected one of said stored sequences of corner hits.

10. The method of claim 9 wherein said comparing includes comparing the determined sequence of corner hits to a library of stored sequences of corner hits which is representational of a printed alphabet.

11. The method of claim 9 additionally comprising changing the stored sequences of corner hits that are linked to each character.

12. The method of claim 11 wherein said changing includes providing one example of a sequence of corner hits and the character to which that sequence is to be linked.

13. The method of claim 1 additionally comprising varying the size of the corners.

14. The method of claim 13 wherein said varying the size includes decreasing the size of only certain corners.

15. The method of claim 13 wherein said varying the size includes decreasing the size of certain corners more than the size of other corners.

16. The method of claim 1 additionally comprising varying the shape of the corners.

17. A character recognition method, comprising:

determining a sequence of corner hits within a unistroke;

identifying a character based on said sequence of corner hits.

18. The method of claim 17 wherein each unistroke is representative of one of a letter, number, punctuation or mode.

19. The method of claim 18 additionally comprising identifying a character as being upper case when said unistroke representative of said character ends in a predetermined corner.

20. The method of claim 18 additionally comprising detecting loss of contact with a touch sensitive surface, said loss of contact indicating the end of a unistroke.

21. The method of claim 18 additionally comprising detecting the actuation of a switch, said actuation indicating the end of a unistroke.

22. The method of claim 18 additionally comprising detecting lack of movement of a joystick for a predetermined period of time, said lack of movement indicating the end of a stroke.