

ing electronic publications, portably viewing video, video game display, and other similar activities utilizing a retractable screen for electronic viewing.

What is claimed is:

1. A flexible display device comprising:
 - a portable tubular housing;
 - a retracting reel rotatably mounted in the housing; and
 - a flexible display support tray retractably connected to the reel for protectively supporting behind a flexible electronic display that is retractable into the housing with the support tray.
2. The display device of claim 1 wherein the electronic display includes an active matrix circuit layer with addressable matrix points within a viewing area.
3. The display of claim 1 further comprising a display sizing sensor to provide screen dimensions to a central processing unit in the housing based on the distance the tray extends out of the housing.
4. The display of claim 1 further comprising a sensor for receiving a signal from an electronic marking device used with the electronic display.
5. The display of claim 4 wherein the marking device is a wireless pen.
6. The display of claim 1 wherein the portable housing includes a shoulder strap.
7. The display of claim 1 wherein the portable housing includes one or more extendible legs for supporting the display upright for viewing.
8. The display of claim 1 wherein the retracting reel is mounted in a removable display cartridge.
9. The display of claim 1 wherein the housing includes a manual winding wheel operably connected to the reel.
10. The display of claim 1 further comprising a roller clutch connected to the reel.
11. The display of claim 10 further comprising a spring assembly in the housing to drive the reel to retract the tray and display.
12. The display of claim 10 further comprising a motor in the housing for driving the reel to retract the tray and display.
13. A flexible display device comprising a retracting reel rotatably mounted in a housing, wherein the reel is connected to a roller clutch to enable retraction and extraction of a flexible electronic display connected to a power source and data source in the housing.
14. The flexible display device of claim 13 further comprising a flexible tray containing the flexible electronic display.
15. The flexible display device of claim 14 wherein the flexible tray includes a user interface for controlling the display of images on the display.
16. The flexible display device of claim 15 further comprising a display sizing sensor.
17. The flexible display device of claim 13 further comprising a marking device sensor for receiving a signal from an electronic writing instrument used with the display.
18. The flexible display device of claim 13 further comprising a network connector for receiving data from a computer.
19. The flexible display device of claim 13 further comprising an active matrix circuit operatively connected to the flexible display for generating images on the display based on addressable points in the matrix.
20. The flexible display device of claim 13 further comprising a position transceiver for calculating the device position.
21. A flexible display device comprising housing with an electronic flexible display retractable into the housing by a winding reel, wherein the electronic flexible display is at least 22 inches wide and 17 inches tall.
22. The flexible display device of claim 21 wherein the electronic flexible display is at least 42 inches wide by 30 inches tall.
23. The flexible display device of claim 21 including a winding controller selected from the group consisting of a manual wheel, a motor, and a spring.
24. The flexible display device of claim 23 further comprising a roller clutch to enable extraction and retraction of the flexible electronic display.
25. The flexible display device of claim 21 further comprising a sensor for detecting a marking device interface to images on the flexible electronic display.
26. The flexible display device of claim 25 wherein the marking device is wireless.
27. The flexible display device of claim 21 further comprising sizing means for determining the size of a partially extracted flexible electronic display.
28. The flexible display device of claim 21 further comprising one or more impact bumpers on the housing.
29. The flexible display device of claim 21 further comprising a flexible data cable interface to the electronic display, wherein the cable winds with the flexible display.
30. The flexible display device of claim 21 wherein the housing includes a plurality of removable casings for servicing or replacing components.

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