

WHAT IS CLAIMED IS:

1. A rollable display apparatus comprising:
a main body portion extending in a length direction and comprising a metallic material;
5 a flexible display panel protruding from an outer surface of the main body portion,
wherein a portion of the flexible display panel is connected to the main body portion; and
a support portion, wherein the flexible display panel is attached to a first surface of the
support portion, and the support portion includes an extension portion extending from the
support portion and beyond an edge of the flexible display panel, and the extension portion
10 includes a magnet that attaches the flexible display panel to the main body portion.
2. The rollable display apparatus of claim 1, wherein there is a plurality of support
portions.
- 15 3. The rollable display apparatus of claim 2, further comprising joint portions
provided between the respective plurality of support portions.
4. The rollable display apparatus of claim 3, wherein the joint portion includes a
multi-joint structure.
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5. The rollable display apparatus of claim 2, wherein there is a plurality of
extension portions, and the plurality of extension portions are respectively included in the
plurality of support portions.
- 25 6. The rollable display apparatus of claim 5, wherein there is a plurality of
magnets, and the plurality of magnets are respectively disposed in the plurality of extension

portions.

7. The rollable display apparatus of claim 1, wherein a length of the flexible display panel is extended, and

5 the flexible display panel is wrapped around an edge of an end support portion.

8. The rollable display apparatus of claim 1, wherein the flexible display panel is spirally wound in two directions.

10 9. The rollable display apparatus of claim 1, wherein the main body portion further comprises a fingerprint scanner to scan a fingerprint of a user and to control power of the rollable display apparatus.

15 10. The rollable display apparatus of claim 1, wherein a cross-section of the main body portion, which is perpendicular to the length direction of the main body portion, has a polygonal shape having rounded corners.

11. The rollable display apparatus of claim 1, wherein the main body portion comprises a power source portion and a controller, and

20 the flexible display panel comprises:

a display area for displaying an image; and

a peripheral area that includes a driving circuit chip and a flexible printed circuit board for supplying power from the power source portion and an electric signal from the controller to the display area, and is disposed in the main body portion.

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12. The rollable display apparatus of claim 1, wherein the support portion has

stronger rigidity than that of the flexible display panel.

13. A rollable display apparatus comprising:

a flexible display panel;

5 a main body portion comprising a metallic material and a through-hole that extends in a length direction of the main body portion so that the flexible display panel penetrates therethrough, and having a column shape extending in the length direction;

a roller disposed in the main body portion, to receive the flexible display panel spirally wind through the through-hole,

10 wherein the flexible display panel is attached to a surface of a support portion, the support portion includes an extension portion extending from the support portion and beyond an edge of the flexible display panel, wherein the edge of the flexible display panel extends along the length direction of the main body portion, and the extension portion includes a magnet that attaches the flexible display panel to the main body portion.

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14. The rollable display apparatus of claim 13, wherein the magnet is extended along the length direction.

15. The rollable display apparatus of claim 13, wherein there is a plurality of
20 magnets.

16. The rollable display apparatus of claim 13, wherein the main body portion further comprises a fingerprint scanner to scan a fingerprint of a user and to control power of the rollable display apparatus.

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17. The rollable display apparatus of claim 13, wherein a cross-section of the main

body portion, which is perpendicular to a length direction of the main body portion, has a circular or oval shape.

18. The rollable display apparatus of claim 13, wherein the flexible display panel is
5 spirally wound in either a first direction or a second direction opposite the first direction.

19. The rollable display apparatus of claim 13, wherein the main body portion
comprises a power source portion and a controller, and
the flexible display panel comprises:
10 a display area for displaying an image; and
a peripheral area that includes a driving circuit chip and a flexible printed circuit board
for supplying power from the power source portion and an electric signal from the controller to
the display area, and is disposed in the main body portion.

20. The rollable display apparatus of claim 13, wherein the support portion has
15 stronger rigidity than that of the flexible display panel.