CLAIMS

1. A light field (LF) display system comprising:
a controller configured to generate holographic content; and
a LF display assembly comprising one or more LF display modules that are configured to present the holographic content in a holographic object volume to one or more viewers located in a viewing volume of the one or more LF display modules of an amusement park ride.

2. The LF display system of claim 1, further comprising:
a sensory feedback system comprising at least one sensory feedback device that is configured to provide sensory feedback as the holographic content is presented.

3. The LF display system of claim 2, wherein the sensory feedback includes tactile feedback, audio feedback, aroma feedback, temperature feedback, or any combination thereof.

4. The LF display system of claim 1, further comprising:
a tracking system comprising one or more tracking devices configured to obtain information about the one or more viewers of the amusement park ride; and
wherein the controller is configured to generate the holographic content for the one or more viewers of the amusement park ride based in part on the information obtained by the tracking system.

5. The LF display system of claim 4, wherein the information obtained by the tracking system includes any of a position of the viewer, a movement of the viewer, a gesture of the viewer, an expression of the viewer, an age of the viewer, a gender of the viewer, and identification of a piece of a garment worn by the viewer.

6. The LF display system of claim 4, wherein the controller is configured to use the information obtained by the tracking system and an artificial intelligence model to generate the holographic content.

7. The LF display system of claim 4, further comprising:

a viewer profiling module configured to:

access the information obtained by the tracking system;

process the information to identify a viewer of the one or more viewers of the amusement park ride; and

generate a viewer profile for the viewer; and

wherein the controller is configured to generate the holographic content for the viewer based in part on the viewer profile.

8. The LF display system of claim 7, wherein the controller is configured to use the viewer profile and an artificial intelligence model to generate the holographic content.

9. The LF display system of claim 7, wherein the viewer profiling module is further configured to:

update the viewer profile using information from a social media account of the viewer; and

wherein the controller is configured to generate the holographic content based in part on the updated viewer profile.

10. The LF display system of claim 9, wherein the controller is configured to use the updated viewer profile and an artificial intelligence model to generate the holographic content.

11. The LF display system of claim 4, further comprising:

a viewer profiling module configured to:

access the information obtained by the tracking system;

process the information to identify the one or more viewers of the amusement park ride; and

generate an aggregate viewer profile for the one or more viewers; and

wherein the controller is configured to generate the holographic content for the one or more viewers based in part on the aggregate viewer profile.

12. The LF display system of claim 11, wherein the viewer profiling module is further configured to:

update the aggregate viewer profile using information from at least one or more social media accounts of the one or more viewers; and

wherein the controller is configured to generate holographic content based in part on the updated aggregate viewer profile.

13. The LF display system of claim 1, further comprising:

a user station configured to be occupied by the viewer and to move relative to the one or more LF display modules, and

wherein the controller is configured to generate holographic content based in part on relative movement between the user station and one or more LF display modules.

14. The LF display system of claim 13, wherein the user station is configured to move and the one or more LF display modules are stationary.

15. The LF display system of claim 14, wherein the user station includes at least one of a motor-controlled chair, a motor-controlled bench, a motor-controlled stool, a motor-controlled cart, a carriage, a vehicle, a motor-controlled floor, or a motor-controlled platform.

16. The LF display system of claim 13, wherein the one or more LF display modules are configured to move and the user station is stationary.

17. The LF display system of claim 1, wherein the presented holographic content of the amusement park ride includes a holographic character.

18. The LF display system of claim 17, further comprising:

a sensory feedback system comprising at least one sensory feedback device that is configured to provide sensory feedback as the holographic character is presented.

19. The LF display system of claim 18, wherein the sensory feedback includes tactile feedback, audio feedback, aroma feedback, temperature feedback, or any combination thereof.

20. The LF display system of claim 19, wherein the tactile feedback is configured to provide a tactile surface coincident with a surface of the holographic character that the one or more viewers may interact with via touch.