CLAIMS:

1. A wearable device for an attraction system, the wearable device comprising:

a display;

a projector oriented at a first oblique angle with respect to the display, wherein the projector is configured to project an image onto the display;

a microphone oriented at a second oblique angle with respect to the display, wherein the microphone is configured to receive audio waves deflecting off the display; and

a base comprising a base section, wherein:

the display extends off a first end of the base to form a gap between the base section and the display, and

the microphone is coupled to the base section and extends from the base section toward the display within the gap.

2. The wearable device of claim 1, wherein the microphone is a directional microphone.

3. The wearable device of claim 1, wherein the wearable device comprises a wearable component configured to enable a user to equip the wearable device.

4. The wearable device of claim 1, comprising a first screen and a second screen through which the projector projects the image onto the display, wherein the first screen and the second screen are offset from one another along a lateral axis of the wearable device, and the microphone is positioned between the first screen and the second screen.

5. The wearable device of claim 1, wherein the display comprises a lens having a concave profile.

6. The wearable device of claim 1, wherein the microphone and the projector are communicatively coupled to a control system configured to perform operations comprising:

receiving audio data from the microphone, wherein the audio data is based on the audio waves deflecting off the display;

analyzing characteristics of the audio data; and

filtering a subset of the audio data from the audio data received from the microphone based on the characteristics of the audio data.

7. The wearable device of claim 1, comprising an enclosure, wherein the projector and the microphone are at least partially positioned within the enclosure.

8. A wearable device for an attraction system, the wearable device comprising:

a wearable component; and

an interactive assembly configured to couple to the wearable component, wherein the interactive assembly comprises:

a projector configured to project an image;

a microphone configured to receive a voice input from a user of the wearable device;

a display, wherein the projector is oriented at a first oblique angle with respect to the display such that that the image projected by the projector is presented on the display, and the microphone is oriented at a second oblique angle with respect to the display such that the microphone is focused to receive audio waves deflecting off the display; and

a base comprising a base section, wherein:

the display extends off a first end of the base to form a gap between the base section and the display, and

the microphone is coupled to the base section and extends from the base section toward the display within the gap.

9. The wearable device of claim 8, wherein the wearable component comprises a headset.

10. The wearable device of claim 8, wherein the base is configured to couple the interactive assembly to the wearable component.

11. The wearable device of claim 10, wherein the base defines a housing, and at least a portion of the projector is disposed within the housing.

12. The wearable device of claim 11, wherein the base section defines a portion of the housing, the base section comprises an opening formed therethrough, the base comprises a screen spanning across the opening, and the projector is configured to project the image through the screen and onto the display.

13. The wearable device of claim 12, wherein the interactive assembly comprises a segment extending across the opening, and the microphone is coupled to the segment.

14. The wearable device of claim 13, wherein the segment comprises an aperture formed therethrough, and the microphone is inserted into the aperture.

15. The wearable device of claim 12, wherein the base comprises lateral sections extending from the base section, and the lateral sections are configured to couple to the wearable component.

16. An attraction system, comprising:

an interactive device comprising a display, a projector, a microphone, and a base comprising a base section, wherein the projector and the microphone are angled obliquely with respect to the display such that the projector is configured to project an image onto the display, the display extends off a first end of the base to form a gap between the base

section and the display, and the microphone is coupled to the base section and extends from the base section toward the display within the gap, and the microphone is configured to receive audio waves deflecting off the display; and

a controller communicatively coupled to the microphone and the projector of the interactive device, wherein the controller is configured to perform operations comprising: receiving audio data via the microphone; and

transmitting image data to the projector based on the audio data to cause the projector to project the image.

17. The attraction system of claim 16, wherein the audio data received via the microphone comprises the audio waves deflecting off the display, and the controller is configured perform operations comprising:
analyzing characteristics of the audio waves;
identifying a subset of the audio data based on the characteristics; and
filtering the subset of the audio data from the audio data received from the microphone.

18. The attraction system of claim 17, wherein the characteristics comprise an intensity of the audio waves, and the controller is configured to filter the subset of the audio data in response to determining the intensity associated with the subset of the audio data is below a threshold intensity.

19. The attraction system of claim 16, wherein the interactive device comprises a headset and an interactive assembly coupled to the headset, the interactive assembly comprising the display, the projector, and the microphone.

20. The wearable device of claim 1, wherein the base section comprises an opening formed therethrough, the wearable device comprises a segment extending across the opening, and the microphone is coupled to the segment.

21. A wearable device for an attraction system, the wearable device comprising:

a display;

a projector oriented at a first oblique angle with respect to the display, wherein the projector is configured to project an image onto the display;

a microphone oriented at a second oblique angle with respect to the display, wherein the microphone is configured to receive audio waves deflecting off the display; and

a first screen and a second screen through which the projector projects the image onto the display, wherein the first screen and the second screen are offset from one another along a lateral axis of the wearable device, and the microphone is positioned between the first screen and the second screen.

22. A wearable device for an attraction system, the wearable device comprising:

a display;

a projector oriented is at an oblique angle with respect to the display, wherein the projector is configured to project an image onto the display; and

a microphone configured to receive sound from a user of the wearable device, wherein the microphone is disposed between the display and a rear end of the wearable device, and the display is configured to deflect the sound from the user toward the microphone.

23. The wearable device of claim 22, wherein the display comprises a concave profile configured to direct the sound toward a focal point.

24. The wearable device of claim 22, comprising processing circuitry configured to:

receive audio data from the microphone; and

instruct the projector to project an image based on the audio data.

25. The wearable device of claim 24, wherein:

the audio data comprises first audio data and second audio data; and

the processing circuitry is configured to discern the first audio data from the second audio data and instruct the projector to project the image based on the first audio data.

26. The wearable device of claim 25, wherein the first audio data is associated with the sound from the user and the second audio data is associated with additional sound from an additional user.

27. The wearable device of claim 26, wherein:

the audio data comprises third audio data associated with show effects of the attraction system; and

the processing circuitry is configured to discern the first audio data from the third audio data.

28. The wearable device of claim 22, comprising a speaker configured to output an audio effect based on the sound received by the microphone.

29. The wearable device of claim 22, comprising a screen disposed between the projector and the display, wherein the projector is configured to project the image through the screen and onto the display.

30. The wearable device of claim 29, wherein:

the screen is a first screen;

the wearable device comprises a second screen disposed between the projector and the display;

the first screen and the second screen are offset from one another along a lateral axis of the wearable device; and

the microphone is positioned between the first screen and the second screen.

31. The wearable device of claim 22, comprising:

a wearable component configured to attach the wearable device to the user; and

an interactive assembly comprising a base configured to couple to the wearable component, wherein the display extends from the base, and the microphone is coupled to the base.

32. A wearable device for an attraction system, the wearable device comprising:

a display;

a projector configured to project an image onto the display, wherein the projector is pointed at an oblique angle with respect to the display; and

a microphone configured to receive sound originating from a user of the wearable device and deflected from the display, wherein the display is configured to block noise of an external environment from the microphone.

33. The wearable device of claim 32, wherein the display comprises a curved surface configured to focus the sound toward the microphone.

34. The wearable device of claim 32, comprising processing circuitry configured to discern the sound from the noise.

35. The wearable device of claim 32, wherein:

the projector is a first projector;

the image is a first image;

the wearable device comprises a second projector configured to project a second image onto the display; and

the first image and the second image are configured to produce a stereoscopic effect.

36. The wearable device of claim 32, wherein the microphone is a directional microphone oriented toward the display.

37. A system, comprising:

a wearable device comprising a display and a microphone, wherein the microphone is configured to receive sound comprising a voice input from a user, the microphone is disposed between the display and a rear end of the wearable device, and the display is configured to deflect the sound toward the microphone;

one or more show effects configured to produce a visual effect, a sound effect, or both, external to the wearable device; and

a control system configured to control operation of the wearable device and the one or more show effects based on the voice input.

38. The system of claim 37, comprising an additional wearable device comprising an additional microphone configured to receive additional sound comprising an additional voice input from an additional user, wherein the control system is configured to filter the additional voice input from the sound received by the microphone of the wearable device.

39. The system of claim 37, wherein the one or more show effects are configured to produce the sound effect, and the control system is configured to filter the sound effect from the sound received by the microphone.

40. The system of claim 37, wherein the display is configured to block noise of an external environment from the microphone.

41. The system of claim 37, wherein the display comprises a concave profile configured to direct the sound toward a focal point.