CLAIMS:

1. A detection system configured to detect improper handling of a wearable visualization device, wherein improper handling is an indication that the wearable visualization device has been dropped or thrown, the detection system comprising:

a sensor coupled to the wearable visualization device; and

a processor configured to: receive a signal from the sensor, wherein the signal is indicative of a total acceleration of the wearable visualization device while the wearable visualization device is carried by a ride vehicle during a ride cycle;

receive data indicative of an acceleration of the ride vehicle during the ride cycle; use the total acceleration of the wearable visualization device and the acceleration of the ride vehicle to isolate an individual acceleration of the wearable visualization device from the total acceleration of the wearable visualization device, wherein the individual acceleration of the wearable visualization device indicates acceleration of the wearable visualization device relative to the ride vehicle;

determine that the signal indicates improper handling of the wearable visualization device in response to the individual acceleration of the wearable visualization device exceeding an acceleration threshold; and

in response to determining that the signal indicates improper handling of the wearable visualization device, instruct an attraction system having the ride vehicle to adjust a path of movement of the ride vehicle during the ride cycle.

2. The detection system of claim 1, comprising a light emitter coupled to the wearable visualization device, wherein the processor is configured to determine a number of events of improper handling of the wearable visualization device over time, and to instruct illumination of the light emitter in response to determining that the number of events exceeds a count threshold.

3. The detection system of claim 1, wherein the processor is configured to determine a severity of the improper handling based on the signal.

4. The detection system of claim 3, comprising a light emitter coupled to the wearable visualization device, wherein the processor is configured to instruct illumination of the light emitter in a first color in response to determining that the severity is a first level and to instruct illumination of the light emitter in a second color in response to determining that the severity is a second level.

5. The detection system of claim 3, wherein the processor is configured to determine the severity by comparing a parameter of the signal to one or more parameter thresholds.

6. The detection system of claim 1, comprising the wearable visualization device, wherein the processor is configured to stop operation of at least one component of the wearable visualization device in response to determining that the signal indicates improper handling of the wearable visualization device, and wherein the at least one component comprises one or more lenses of the wearable visualization device configured to provide an augmented reality (AR), a virtual reality (VR), and/or mixed reality experience to a user.

7. The detection system of claim 1, wherein the processor is configured to determine a type of improper handling of the wearable visualization device based on the signal.

8. The detection system of claim 7, comprising a light emitter coupled to the wearable visualization device, wherein the processor is configured to instruct illumination of the light emitter in a first color in response to determining that the type correlates to the wearable visualization device being dropped and to instruct illumination of the light emitter in a second color in response to determining that the type correlates to the wearable visualization device being thrown.

9. The detection system of claim 1, wherein the processor is configured to provide a notification to a remote system that is located remotely from the wearable visualization device in response to determining that the signal indicates improper handling of the wearable visualization device.

10. The detection system of claim 9, wherein the remote system comprises the attraction system, and the notification is configured to cause the attraction system to adjust a feature of an attraction.

11. The detection system of claim 1, wherein the processor is configured to generate instructions to adjust operation of a light emitter on the ride vehicle in response to determining that the signal indicates improper handling of the wearable visualization device.

12. The detection system of claim 1, comprising a light emitter coupled to the wearable visualization device, wherein the processor is configured to instruct illumination of the light emitter in response to determining that the signal indicates improper handling of the wearable visualization device.

~~13. A wearable visualization device, comprising:~~

13. A wearable visualization device, comprising:

a housing configured to couple to a head of a user via an interface device;

one or more lenses coupled to the housing and configured to overlay augmented reality (AR), virtual reality (VR), and/or mixed reality features onto a line of sight of the user;

a sensor supported by the housing and configured to detect a motion of the wearable visualization device; and

a processor configured to receive a signal from the sensor, determine whether the signal indicates that the wearable visualization device has been dropped or thrown based on a detected motion of the wearable visualization device, ~~and~~ wherein such indication is determined by isolating the motion or acceleration of the wearable visualization device from the expected or known motion of the ride vehicle; and

instruct an attraction system having a ride vehicle and the wearable visualization device to block movement of the ride vehicle out of a loading/unloading zone in response to determining that the signal indicates that the wearable visualization device has been dropped or thrown.

14. The wearable visualization device of claim 13, comprising a light emitter supported by the housing, wherein the processor is configured to determine a number of times that the wearable visualization device has been dropped or thrown over time, and to instruct illumination of the light emitter in response to determining that the number of times exceeds a count threshold.

15. The wearable visualization device of claim 13, comprising a light emitter supported by the housing, wherein the processor is configured to: determine a severity of a drop or a throw of the wearable visualization device based on the signal; and instruct illumination of the light emitter in a first color in response to determining that the severity is a first level and to instruct illumination of the light emitter in a second color in response to determining that the severity is a second level.

16. The wearable visualization device of claim 13, wherein the signal generated by the sensor is indicative of a total acceleration of the wearable visualization device while the wearable visualization device is carried by the ride vehicle during a ride cycle, and the processor is configured to: receive data indicative of an acceleration of the ride vehicle during the ride cycle; use the total acceleration of the wearable visualization device and the acceleration of the ride vehicle to isolate an individual acceleration of the wearable visualization device from the total acceleration of the wearable visualization device, wherein the individual acceleration of the wearable visualization device indicates acceleration of the wearable visualization device relative to the ride vehicle; and determine that the signal indicates that the wearable visualization device has been dropped or thrown in response to the individual acceleration of the wearable visualization device exceeding an acceleration threshold.

17. The wearable visualization device of claim 13, comprising the interface device, wherein the interface device is configured to couple to the head of the user via a head strap assembly.

18. A method of using a detection system to detect improper handling of a wearable visualization device, wherein improper handling is an indication that the wearable visualization device has been dropped or thrown, the method comprising:

receiving, at a processor, a signal from a sensor coupled to the wearable visualization device,

wherein the signal is indicative of a total acceleration of the wearable visualization device while the wearable visualization device is carried by a ride vehicle during a ride cycle;

determining, via the processor, an acceleration of the ride vehicle during the ride cycle based on a known acceleration profile of the ride vehicle, wherein the known acceleration profile includes data indicating an expected value of the acceleration of the ride vehicle repeated during sequential courses of the ride cycle between loading/unloading operations of the ride vehicle;

_____isolating, via the processor, an individual acceleration of the wearable visualization device from the total acceleration of the wearable visualization device using the total acceleration of the wearable visualization device and the acceleration of the ride vehicle, wherein the individual acceleration of the wearable visualization device indicates acceleration of the wearable visualization device relative to the ride vehicle;

_____determining, using the processor, that the signal indicates improper handling of the wearable visualization device in response to the individual acceleration of the wearable visualization device exceeding an acceleration threshold; counting, using the processor, a number of events of improper handling of the wearable visualization device over time; and instructing, using the processor,

_____illumination of a light emitter in response to determining that the number of events exceeds a count threshold.

19. The method of claim 18, comprising stopping, via the processor, display of augmented reality (AR), virtual reality (VR), and/or mixed reality features on one or more lenses of the wearable visualization device in response to determining that the signal indicates improper handling of the wearable visualization device.

20. The method of claim 18, providing, via the processor, a notification to a remote system that is located remotely from the wearable visualization device in response to determining that the signal indicates improper handling of the wearable visualization device.