

## CLAIMS:

1. An interactive system, comprising:
  - a device configured to output a signal toward a surface such that the signal reflects off the surface at an angle and along a path of travel, and such that an object that interrupts the path of travel of the signal causes a return signal to travel in a reverse direction along the path of travel for receipt by the device; and
  - a control system communicatively coupled to the device, wherein the control system is configured to:
    - receive data from the device, wherein the data is associated with the receipt of the return signal by the device; and
    - determine a position of the object relative to the device based on the data.
2. The interactive system of claim 1, wherein the data comprises a distance traveled by the return signal in the reverse direction along the path of travel.
3. The interactive system of claim 1, wherein the path of travel extends relative to a first axis and a second axis, and the control system is configured to determine the position of the object relative to the first axis, relative to the second axis, or both.
4. The interactive system of claim 3, wherein the control system is configured to determine the position of the object relative to the first axis via a first equation, wherein the control system is configured to determine the position of the object relative to the second axis via a second equation, and wherein the first equation and the second equation comprise a distance of travel by the return signal.
5. The interactive system of claim 1, comprising an interactive component, wherein the control system is configured to:
  - compare the position of the object with a respective position of the interactive component; and

determine an interaction with the interactive component has occurred based on a determination that the position of the object matches with the respective position of the interactive component.

6. The interactive system of claim 5, wherein the control system is configured to adjust the interactive component in response to determining the interaction with the interactive component has occurred.

7. The interactive system of claim 5, comprising a database, wherein the control system is configured to update a number of points assigned to a user within the database in response to determining the interaction with the interactive component has occurred.

8. The interactive system of claim 1, comprising a display, wherein the control system is configured to update the display based on the position of the object relative to the device.

9. An interactive system, comprising:  
a first surface;  
a second surface positioned opposite to the first surface to form a space between the first surface and the second surface;  
a device configured to output a signal toward the first surface such that the signal reflects off the first surface and toward the second surface along a path of travel, and such that an object that interrupts the path of travel of the signal causes the signal to reflect off the object and form a return signal that travels in a reverse direction along the path of travel for receipt by the device; and  
a control system communicatively coupled to the device, wherein the control system is configured to:

receive data from the device, wherein the data is associated with the receipt of the return signal by the device; and  
determine a presence of the object within the space based on the data.

10. The interactive system of claim 9, wherein the control system is configured to determine a position of the object within the space based on the data.

11. The interactive system of claim 10, wherein the data comprises a distance traveled by the return signal in the reverse direction, and wherein the control system is configured to determine the position of the object within the space based on the distance, a length of the path of travel spanning between the first surface and the second surface, and an angle of contact between the signal and the first surface.

12. The interactive system of claim 10, wherein the control system is configured to determine a height of the object relative to a floor based on the position of the object within the space.

13. The interactive system of claim 9, wherein the first surface and the second surface comprise a reflective material.

14. The interactive system of claim 9, wherein the device is configured to output the signal within the space such that the path of travel of the signal comprises a wave-like pattern.

15. The interactive system of claim 9, wherein the control system is configured to operate the interactive system based on determining the presence of the object within the space.

16. An interactive system, comprising:
- a first surface;
  - a second surface positioned relative to the first surface to form a space between the first surface and the second surface;
  - a device configured to output a signal into the space such that the signal reflects off the first surface and the second surface along a path of travel within the space, and such that an object that interrupts the path of travel of the signal causes the signal to reflect off the object and form a return signal that travels in a reverse direction along the path of travel for receipt by the device, and wherein the device is configured to determine a distance traveled by the return signal upon the receipt of the return signal; and
  - a control system communicatively coupled to the device, wherein the control system is configured to:
    - receive data from the device, wherein the data is indicative of the distance traveled by the return signal; and
    - determine a position of the object relative to the device based on the data.
17. The interactive system of claim 16, wherein the path of travel is relative to a first axis, a second axis, and a third axis within the space, and wherein the control system is configured to determine the position of the object relative to the first axis, the second axis, and the third axis.
18. The interactive system of claim 17, wherein the control system is configured to:
- determine a plurality of positions of the object;
  - associate each position of the plurality of positions with a respective time; and
  - determine a profile of the object based on the association between each position of the plurality of positions with the respective time.

19. The interactive system of claim 16, wherein the space is a passageway through which the object may navigate.

20. The interactive system of claim 16, wherein the device comprises a laser ranging device, a light detection and ranging device, a radar device, a sound navigation ranging device, a photometer, an ultrasonic ranging device, or any combination thereof.