What is claimed is:

1. A system for diverting a laser beam, comprising:

a laser source emitting an incident laser beam comprising a plurality of rays projecting as a dot;

a lenticular sheet having a lens side comprising a plurality of parallel longitudinal lenticular lenses and a smooth side opposite the lens side;

at least one diffraction grating having at least one dual-axis diffraction grating oriented such that a first plurality of lines thereof are oriented at a non-zero orientation angle relative to a second plurality of lines thereof;

wherein:

the laser source is aimed towards the lens side of the lenticular sheet such that the incident laser beam falls onto at least one of the plurality of parallel longitudinal lenticular lenses,

a first portion of the plurality of rays of the incident laser beam is diverted by refraction to form a refracted beam of a first shape, and

a second portion of the plurality of rays of the incident laser beam is reflected by a surface of the at least one of the plurality of parallel longitudinal lenticular lenses to form a reflected beam of a second particular shape.

2. The system of claim 1, wherein the laser source is aimed so that the first incident laser beam falls perpendicularly onto the at least one of the plurality of parallel longitudinal lenticular lenses, the first portion of the incident the laser beam diverted by refraction represents a majority of the plurality of rays of the incident laser beam, and the refracted beam of the first particular shape is in the form of a triangular plane beam projected as a straight line.

3. The system of claim 2, wherein the lenticular sheet is placed in an upright position such that the plurality of parallel longitudinal lenses are oriented horizontally, the triangular plane beam is vertically oriented, and the projected straight line is vertical.

4. The system of claim 2, wherein the lenticular sheet is placed in an upright position such that the plurality of parallel longitudinal lenticular lenses are oriented vertically, the triangular plane beam is horizontally oriented, and the projected straight line is horizontal.

5. The system of claim 1, wherein the laser source is aimed so that the incident laser beam falls at an angle of incidence to a perpendicular direction onto the at least one of the plurality of parallel longitudinal lenticular lenses such that the first portion of the plurality of rays of the first incident laser beam diverted by refraction represents a majority of the plurality of rays of the first incident laser beam, the first incident laser beam is in the same plane as a horizontal plane passing through the at least one of the plurality of parallel longitudinal lenticular lenses, and the refracted beam of a particular shape is in the form of a curved plane projected as an arc.

6. The system of claim 1, wherein the laser source is aimed so that the first incident laser beam falls at an incident angle off of a perpendicular direction onto the at least one of the plurality of parallel longitudinal lenticular lenses such that the first and second portions together form a cone projecting to a circle.

7. The system of claim 1, wherein the lens side of the lenticular sheet is coated with reflective material such that the second portion of the plurality of rays reflected by

the surface of the at least one of the plurality of longitudinal lenticular lenses comprises all of the plurality of rays of the incident laser beam.

8. The system of claim 1, wherein an anti-reflective layer or coating is disposed on at least one of the lens side and the smooth side of the lenticular sheet for reducing the second portion of the plurality of rays of the incident laser beam which is reflected by the surface of the at least one of the plurality of longitudinal lenticular lenses.

9. The system of claim 1, wherein the at least one diffraction grating is positioned between the laser source and the lenticular sheet such that the incident laser beam passes through the diffraction grating before passing through the lenticular sheet.

10. The system of claim 1, wherein the at least one diffraction grating is positioned behind the lenticular sheet such that the incident laser beam passes through the diffraction grating after passing through the lenticular sheet.

11. The system of claim 9 or claim 10, wherein the lenticular sheet is placed in an upright position such that the plurality of parallel longitudinal lenses are oriented horizontally, and the at least one diffraction grating comprises at least one linear diffraction grating oriented such that a plurality of lines thereof are vertically oriented.

12. The system of claim 9 or claim 10, wherein the lenticular sheet is placed in an upright position such that the plurality of parallel longitudinal lenses are oriented at an angle to the horizontal plane, and the at least one diffraction grating comprises at least one linear diffraction grating oriented such that a plurality of lines thereof are vertically oriented.

13. The system of claim 9 or claim 10, wherein the lenticular sheet is placed in an upright position such that the plurality of parallel longitudinal lenses are oriented horizontally, and the at least one dual-axis diffraction grating is oriented such that the first plurality of lines thereof are vertically oriented, and the second plurality of lines thereof are horizontally oriented.

14. The system of claim 9 or claim 10, wherein the lenticular sheet is placed in an upright position such that the plurality of parallel longitudinal lenses are oriented at an angle to the horizontal plane, and the at least one dual-axis diffraction grating is oriented such that the first plurality of lines thereof are vertically oriented, and the second plurality of lines thereof are horizontally oriented.

15. A system for manipulating two laser beams to form a cone, comprising:

a first laser source producing a first incident beam comprised of a plurality of rays projecting to a dot;

a second laser source producing a second incident beam comprised of a plurality of rays projecting to a dot;

a double-sided lenticular sheet having a first lens side comprising a plurality of parallel longitudinal lenticular lenses and a second lens side comprising a plurality of parallel longitudinal lenticular lenses opposite the first lens side;

wherein:

the first laser source is directed towards the first side of the lenticular sheet so that the first incident beam falls onto one of the plurality of parallel longitudinal lenticular lenses at an incident angle such that the majority of the first incident beam rays are reflected forming a first curved plane;

the second laser source is directed towards the second side of the lenticular sheet so that the second incident beam falls onto an opposite side of the one of the

plurality of parallel longitudinal lenticular lenses at the same incident angle as the first laser source such that the majority of the second incident beam rays are refracted forming a second curved plane;

the first and second curved planes together form a cone projected as a circle.

16. The system of claim 15, wherein the double-sided lenticular sheet comprises a first and a second single-sided lenticular sheet each having a lens side and a smooth side, and wherein the first and second single-sided lenticular sheets are positioned back-to-back at their respective smooth sides.

17. The system of claim 16, further comprising a sheet of bright opaque material disposed between the respective smooth sides of the first and second single-sided lenticular sheets.

18. The system of claim 17, wherein the sheet of bright opaque material comprises a double-sided mirror.

19. The system of claim 15, wherein the first lens side and the second lens side are coated with or made of reflective material.

20. The system of claim 16, wherein the smooth sides of the first and second single-sided lenticular sheets are coated with reflective material.

21. A system for manipulating two laser beams to form a cone, comprising:

a first laser source producing a first incident beam comprised of a plurality of rays projecting to a dot;

a second laser source producing a second incident beam comprised of a plurality of rays projecting to a dot;

a lenticular sheet having a first lens side comprising a plurality of parallel longitudinal lenticular lenses and a second lens side comprising a plurality of parallel longitudinal lenticular lenses opposite the first side;

wherein:

the first laser source is directed towards the first side of the lenticular sheet so that the first incident beam falls onto one of the plurality of parallel longitudinal lenticular lenses at a first incident angle such that the first incident beam rays are refracted and reflected to form a first cone; and

the second laser source is directed towards the second side of the lenticular sheet so that the second incident beam falls onto an opposite side of the one of the plurality of parallel longitudinal lenticular lenses at an incident angle greater than the first incident angle such that the second incident beam rays are refracted and reflected to form a second cone larger than the first cone and coaxial therewith.

22. The system of claim 21, wherein the first and second beams are spaced apart when they fall on the one of the plurality of parallel longitudinal lenticular lenses such that there is a distance between an apex of the first cone and an apex of the second cone.

23. A method of detecting at least one object using a light detection and ranging (LIDAR) system, the method comprising:

projecting a first incident laser beam at a first angle onto a first lens side of a double-sided lenticular sheet for producing a first half cone of reflected rays;

projecting a second incident laser beam at a second angle onto a second lens side of the double-sided lenticular sheet for producing a second half cone of

reflected rays which, together with the first half cone of reflected rays forms a full cone of reflected rays;

detecting, by at least one sensor of the LIDAR system, signals reflected off at least one object when the at least one object crosses any one of the reflected rays of the full cone.

24. The method of claim 23, further comprising varying the first angle and the second angle for changing the size of the first half cone and the second half cone, respectively.

25. A system for diverting a laser beam, comprising:

a laser source for projecting an incident laser beam;

a first lenticular sheet having a lens side comprising a plurality of parallel longitudinal lenticular lenses and a smooth side opposite the first side; and

a second lenticular sheet having a lens side comprising a plurality of parallel longitudinal lenticular lenses and a smooth side opposite the first side;

wherein:

the plurality of parallel longitudinal lenticular lenses of the first lenticular sheet are offset relative to the plurality of parallel longitudinal lenticular lenses of the second lenticular sheet;

the first and second lenticular sheets are positioned such that the smooth side of the first lenticular sheet faces the smooth side of the second lenticular sheet and the first and second lenticular sheets form a double-sided lenticular sheet; and

the laser source projects the incident laser beam through the first and second lenticular sheets.

26. The system of claim 25, wherein the second lenticular sheet is positioned such that the plurality of lenticular lenses thereof are parallel to and laterally offset from the plurality of lenticular lenses of the first lenticular sheet as to cause an interference pattern between the two lenticular sheets for deviating the laser beam.

27. The system of claim 25, wherein the second lenticular sheet is positioned such that the plurality of lenticular lenses thereof are angled to the plurality of lenticular lenses of the first lenticular sheet so as to cause an interference pattern between the two lenticular sheets for deviating the laser beam.

28. The system of claim 26 or claim 27, further comprising a double-sided lenticular sheet having a first lens side comprising a plurality of parallel longitudinal lenticular lenses and a second lens side comprising a plurality of parallel longitudinal lenticular lenses opposite the first side, the double-sided lenticular sheet positioned to the front of or behind the first and second lenticular sheets with respect to the laser source.

29. The system of claim 26 or claim 27, wherein the first and second lenticular sheets are integrally formed.

30. The system of claim 28, wherein the first and second lenticular sheets, and the double-sided lenticular sheet are integrally formed.

31. A method of making a system for deviating a laser beam, comprising:

providing a first lenticular sheet having a lens side comprising a plurality of parallel longitudinal lenticular lenses and a smooth side opposite the first side;

providing a second lenticular sheet having a lens side comprising a plurality of parallel longitudinal lenticular lenses and a smooth side opposite the first side;

adhering the smooth side of the first lenticular sheet to the smooth side of the second lenticular sheet to form a double-sided lenticular sheet;

wherein the plurality of parallel longitudinal lenticular lenses of the first lenticular sheet are offset relative to the plurality of parallel longitudinal lenticular lenses of the second lenticular sheet.

32. The method of claim 31, further comprising, prior to said adhering, positioning the second lenticular sheet such that the plurality of lenticular lenses thereof are parallel to and laterally offset from the plurality of lenticular lenses of the first lenticular sheet.

33. The method of claim 31, further comprising, prior to said adhering, positioning the second lenticular sheet such that the plurality of lenticular lenses thereof are angled to the plurality of lenticular lenses of the first lenticular sheet.

34. The method of claim 32 or 33, further comprising:

providing another double-sided lenticular sheet having a first lens side comprising a plurality of parallel longitudinal lenticular lenses and a second lens side comprising a plurality of parallel longitudinal lenticular lenses opposite the first side; and

adhering said another double-sided lenticular sheet to the lens side of the first lenticular sheet or to the lens side of the second lenticular sheet such that the plurality of parallel longitudinal lenticular lenses of the double-

sided lenticular sheet are parallel to either the plurality of parallel longitudinal lenticular lenses of the first or second lenticular sheet.

35. The system of claim 1, wherein the at least one dual-axis diffraction grating comprises a first linear diffraction grating having the first plurality of lines and a second linear diffraction grating having the second plurality of lines.

36. The system of claim 1, wherein the non-zero orientation angle is 90 degrees.

37. The system of claim 25, further comprising at least one diffraction grating having at least one dual-axis diffraction grating oriented such that a first plurality of lines thereof are oriented at a non-zero orientation angle relative to a second plurality of lines thereof.

38. The system of claim 37, wherein the at least one dual-axis diffraction grating comprises a first linear diffraction grating having the first plurality of lines and a second linear diffraction grating having the second plurality of lines.

39. The system of claim 37, wherein the non-zero orientation angle is 90 degrees.

40. The method of claim 31, further comprising: providing at least one dual-axis diffraction grating oriented such that a first plurality of lines thereof are oriented at a non-zero orientation angle relative to a second plurality of lines thereof.