CLAIMS

1. A system for providing multi-focal vision correction to a patent comprising:

an energized ophthalmic lens comprising a media insert and a hydrogel portion, wherein the hydrogel portion supports the media insert which includes one or both of: a battery and an arcuate shaped liquid meniscus lens;

a communication system in logical electrical connection with a system processor of the energized ophthalmic lens, the communication system configured to wirelessly receive data from a refraction examination of a user; and

the system processor being supported by the media insert and configured to change the shape of the liquid meniscus of said arcuate shaped liquid meniscus lens from a first state to a second state according to a programmed signal based on an input from a user and the wirelessly received data from the refraction examination,

wherein the geometry of the ophthalmic lens is at least partially defined by a topographical examination, is useful to be worn on the anterior ocular surface of an eye, and capable of correcting distance vision deficiencies when the liquid meniscus of said arcuate shaped liquid meniscus lens is at a first state, and

the change of the shape of the liquid meniscus of said arcuate shaped liquid meniscus lens from a first state to a second state can correct near sight deficiencies.

2. The system of claim 1, wherein:

the refraction examination takes place at a remote location using diagnostic software configured to display simulated graphical comparisons and receive user feedback corresponding to an anticipated optical performance resulting from the change of the shape of the liquid meniscus of said arcuate liquid meniscus lens when viewing one or more of the simulated graphical representation.

3. The system of claim 2, wherein:

the software configured to display the simulated graphical comparisons uses corneal topography information and ophthalmic lens geometry information to simulate the expected optical performance.

4. The system of claim 2, wherein:

the diagnostic software is executed by a personal computer capable of displaying the graphical comparisons, the graphical comparisons including a graphical representation modified by the anticipated optical performance of the shape of the liquid meniscus of said arcuate liquid meniscus lens at the second state.

5. The system of claim 2, wherein:

the diagnostic software is executed by a handheld device capable of displaying the graphical comparisons, the graphical comparisons including a graphical representation modified by the anticipated optical performance of the shape of the liquid meniscus of said arcuate liquid meniscus lens at the second state.

6. The system of claim 2, wherein:

the diagnostic software is capable of sending one or both of user's feedback and measurement refraction examination information to an eye care practitioner.

7. The system of claim 1, wherein:

the refraction examination takes place at an eye care practitioner office using diagnostic software configured to display a simulated graphical representation and receive user feedback corresponding to an expected optical performance resulting from the change of the shape of the liquid meniscus of said arcuate liquid meniscus lens when viewing the simulated graphical representation.

8. The system of claim 7, wherein: the software configured to display the simulated graphical comparisons uses corneal topography information and product geometry information to simulate the expected optical performance.

9. The system of claim 7, wherein:

the diagnostic software is executed by a personal computer capable of displaying the graphical comparisons, the graphical comparisons including a graphical representation modified by the anticipated optical performance of the shape of the liquid meniscus of said arcuate liquid meniscus lens at the second state.

10. A system for providing multi-focal vision correction to a patient comprising:

an energized ophthalmic lens comprising a media insert and a hydrogel portion, wherein the hydrogel portion supports the media insert which includes a battery and a liquid meniscus lens;

a communication system in logical electrical connection with a system processor of the ophthalmic lens, the communication system configured to receive data from a refraction examination of a user; and

the system processor is supported by the media insert and configured to change the shape of the liquid meniscus of the liquid meniscus lens from a first state to a second state according to an input from a user and the received data from the refraction examination,

wherein the geometry of the ophthalmic lens is at least partially defined by a topographical examination and is useful to be worn on the anterior ocular surface of an eye and capable of correcting near vision deficiencies when the liquid meniscus is at a first state, and

the change of the shape of the liquid meniscus from a first state to a second state can correct distance sight deficiencies.

11. The system of claim 10, wherein:

the refraction examination takes place at a remote location using diagnostic software configured to display simulated graphical comparisons and receive user feedback corresponding to an anticipated optical performance resulting from the change of the shape of the liquid meniscus when viewing the simulated graphical representation.

12. The system of claim 11, wherein:

the software configured to display the simulated graphical comparisons uses corneal topography information and product geometry information to simulate the expected optical performance.

13. The system of claim 11, wherein:

the diagnostic software is executed by a personal computer capable of displaying the graphical comparisons, the graphical comparisons including a graphical representation modified by the anticipated optical performance of the shape of the liquid meniscus at the second state.

14. The system of claim 11, wherein:

the diagnostic software is executed by a handheld device capable of displaying the graphical comparisons, the graphical comparisons including a graphical representation modified by the anticipated optical performance of the shape of the liquid meniscus at the second state.

15. The system of claim 11, wherein:

the diagnostic software is capable of sending one or both of user's feedback and measurement refraction examination information to an eye care practitioner.

16. The system of claim 10, wherein:

the refraction examination takes place at an eye care practitioner office using diagnostic software configured to display a simulated graphical representation and receive user feedback corresponding to an expected optical performance resulting from the change of the shape of the liquid meniscus when viewing the simulated graphical representation.

17. The system of claim 16, wherein:

the software configured to display the simulated graphical comparisons uses corneal topography information and product geometry information to simulate the expected optical performance.

18. The system of claim 16, wherein:

the diagnostic software is executed by a personal computer capable of displaying the graphical comparisons, the graphical comparisons including a graphical representation modified by the anticipated optical performance of the shape of the liquid meniscus at the second state.