WHAT IS CLAIMED IS:

1. A binocular loupe comprising:

one or more sealed fluid filled lenses;

one or more actuators coupled to the one or more sealed fluid filled lenses and configured to change the optical power of the one or more sealed fluid filled lenses;

a distance sensor configured to measure the distance between a user and an object under study by the user; and

a controller configured to apply one or more signals to the one or more actuators coupled to the one or more sealed fluid filled lenses based on a measurement received from the distance sensor.

2. The binocular loupe of claim 1, wherein the one or more actuators are electromechanical actuators.

3. The binocular loupe of claim 2, wherein the electromechanical actuators vary one or more pressures applied to one or more liquid reservoirs coupled to the one or more sealed fluid filled lenses.

4. The binocular loupe of claim 3, wherein the one or more pressures applied changes the curvature of the one or more sealed fluid filled lenses.

5. The binocular loupe of claim 4, wherein the applied changes to the curvature of the one or more sealed fluid filled lenses changes the power of the lenses in a range of 0 to 2.7.

6. The binocular loupe of claim 4, wherein the applied changes to the curvature of the one or more sealed fluid filled lenses changes the focal length associated with the binocular loupe in a range of 340 mm to 520 mm.

7. The binocular loupe of claim 1, wherein the distance sensor uses IR wavelengths.

8. The binocular loupe of claim 1, wherein the distance sensor is an ultrasonic sensor.

9. The binocular loupe of claim 1, wherein the distance sensor uses visible light wavelengths.

10. The binocular loupe of claim 1, further comprising a bridge containing the distance sensor and the controller.

11. A method comprising:

receiving a signal from a distance sensor, wherein the signal is associated with the distance between a user and an object under study by the user;

comparing the signal to an optical power associated with one or more sealed fluid filled lenses; and

adjusting the optical power of the one or more sealed fluid filled lenses based on the comparing.

12. The method of claim 11, wherein the receiving is performed continuously.

13. The method of claim 12, wherein the receiving continuously receives an optical signal.

14. The method of claim 12, wherein the receiving continuously receives an acoustic signal.

15. The method of claim 11, wherein the comparing further compares the signal to the radius of curvature of the one or more sealed fluid filled lenses.

16. The method of claim 11, wherein the adjusting the optical power is executed by adjusting the curvature of the one or more sealed fluid filled lenses.

17. The method of claim 16, wherein the adjusting the curvature is performed by one or more electromechanical actuators.

18. The method of 17, wherein the electromechanical actuators vary one or more pressures applied to one or more liquid reservoirs coupled to the one or more sealed fluid filled lenses.

WHAT IS CLAIMED IS:

1. An invention not claimed in any divisional application.