WHAT IS CLAIMED IS:

1. An actuator for a sealed fluid filled lens comprising:

a tweezer assembly with a fixed end and a free end;

a reservoir disposed within the tweezer assembly wherein the reservoir is in fluid communication with the fluid filled lens and is placed parallel to a length of the tweezer assembly between the fixed end and the free end such that flexing the tweezer assembly compresses the reservoir along a length of the reservoir; and

a slider that is laterally moveable along an outer surface of the tweezer assembly, wherein movement of the slider from one end of the tweezer assembly to the other end flexes the tweezer assembly.

2. The actuator of 1, wherein the slider moves laterally along the length of the tweezer assembly.

3. The actuator of 1, wherein the flexing direction of the tweezer assembly is vertically aligned with respect to the length of the tweezer assembly.

4. The actuator of 3, wherein the slider has a rounded cuff shape.

5. The actuator of 3, wherein the slider moves along an inner side of the tweezer assembly.

6. The actuator of 1, wherein the flexing direction of the tweezer assembly is horizontally aligned with respect to the length of the tweezer assembly.

7. The actuator of 6, wherein the slider has an open bracket shape.

8. The actuator of 6, wherein the slider has a closed bracket shape.

9. The actuator of 7, wherein the slider further comprises a sliding loop connected to the slider, wherein the sliding loop fits around the tweezer assembly.

10. The actuator of 8, wherein the slider further comprises a sliding loop connected to the slider, wherein the sliding loop fits around the tweezer assembly.

11. The actuator of 1, wherein the slider glides on ball bearings placed between the slider and the tweezer assembly.

12. The actuator of 6, wherein the slider glides on ball bearings placed between the slider and the reservoir.

13. The actuator of 1, wherein movement of the slider along the tweezer assembly is confined between two mechanical stops.

14. The actuator of 1, wherein the fixed end of the tweezer assembly is distal to the fluid filled lens.

15. An actuator for a sealed fluid filled lens comprising:

a housing;

a reservoir disposed within the housing wherein the reservoir is in fluid communication with the fluid filled lens and is placed parallel to a length of the housing, the length being the longest dimension of the housing;

a piston placed inside the housing and attached to a distal end of the reservoir wherein lateral movement of the piston from a first end of the housing to a second end of the housing collapses the reservoir onto itself; and

a slider which can move laterally along an outer surface of the housing and wherein the movement of the slider from the first end of the housing to the second end of the housing moves the piston causing the reservoir to collapse onto itself.

16. The actuator of 15, wherein the piston is a magnet having a fixed polarity.

17. The actuator of 16, wherein the slider is a magnet having a fixed polarity that is opposite the polarity of the piston.

18. The actuator of 15, wherein the slider has an open bracket shape.

19. The actuator of 15, wherein the slider has a closed bracket shape.

20. The actuator of 15, wherein the slider glides on ball bearings placed between the slider and the housing.

21. The actuator of 15, wherein the lateral movement of the slider along the outer surface of the housing is confined between two mechanical stops.

22. An actuator for a sealed fluid filled lens comprising:

a housing with an inner half and an outer half;

a plurality of compressible domes placed along the outer surface of the housing comprising:

a plurality of meta-stable domes placed along the outer surface of the inner half of the housing; and

a plurality of bi-stable domes placed along the outer surface of the outer half of the housing

wherein each bi-stable dome is placed directly across from a respective meta-stable dome; and

a reservoir disposed within the housing wherein the reservoir is in fluid communication with the fluid filled lens, and wherein the reservoir is placed between the plurality of meta-stable domes and the plurality of bi-stable domes.

23. The actuator of 22, wherein each bi-stable dome is compressible into the respective meta-stable dome.

24. The actuator of 23, wherein each bi-stable dome exists in either a compressed state or a relaxed state.

25. The actuator of 24, wherein the compressed state of the bi-stable dome causes a local maximal compression of the reservoir.

26. The actuator of 24, wherein the relaxed state causes no compression of the reservoir.

27. The actuator of 24, wherein compression of the bi-stable dome causes compression of the reservoir.

28. The actuator of 22, wherein each meta-stable dome is compressible into the respective bi-stable dome.

29. The actuator of 28, wherein each meta-stable dome can exist in any state between a fully compressed state and a fully relaxed state.

30. The actuator of 29, wherein the fully compressed state causes a local maximal compression of the reservoir.

31. The actuator of 29, wherein the fully relaxed state causes no compression of the reservoir.

32. The actuator of 22, wherein the compressible domes are spaced equidistant along a length of the housing, the length being the longest dimension of the housing.

33. The actuator of 22, wherein compression of any bi-stable dome will return the respective meta-stable dome from any state of compression to the fully relaxed state.

What is claimed is:

1. An actuator for a sealed fluid filled lens comprising:

a tweezer assembly with a fixed end and a free end;

a reservoir disposed within the tweezer assembly wherein the reservoir is in fluid communication with the fluid filled lens and is placed parallel to a length of the tweezer assembly between the fixed end and the free end such that flexing the tweezer assembly compresses the reservoir along a length of the reservoir; and

a slider that is laterally moveable along an outer surface of the tweezer assembly, wherein movement of the slider from one end of the tweezer assembly to the other end flexes the tweezer assembly.

2. The actuator of 1, wherein the slider moves laterally along the length of the tweezer assembly.

3. The actuator of 1, wherein the flexing direction of the tweezer assembly is vertically aligned with respect to the length of the tweezer assembly.

4. The actuator of 3, wherein the slider has a rounded cuff shape.

5. The actuator of 3, wherein the slider moves along an inner side of the tweezer assembly.

6. The actuator of 1, wherein the flexing direction of the tweezer assembly is horizontally aligned with respect to the length of the tweezer assembly.

7. The actuator of 6, wherein the slider has an open bracket shape.

8. The actuator of 6, wherein the slider has a closed bracket shape.

9. The actuator of 7, wherein the slider further comprises a sliding loop connected to the slider, wherein the sliding loop fits around the tweezer assembly.

10. The actuator of 8, wherein the slider further comprises a sliding loop connected to the slider, wherein the sliding loop fits around the tweezer assembly.

11. The actuator of 1, wherein the slider glides on ball bearings placed between the slider and the tweezer assembly,

12. The actuator of 6, wherein the slider glides on ball bearings placed between the slider and the reservoir.

13. The actuator of 1, wherein movement of the slider along the tweezer assembly is confined between two mechanical stops.

14. The actuator of 1, wherein the fixed end of the tweezer assembly is distal to the fluid filled lens.

15. An actuator for a sealed fluid filled lens comprising:

a housing;

a reservoir disposed within the housing wherein the reservoir is in fluid communication with the fluid filled lens and is placed parallel to a length of the housing, the length being the longest dimension of the housing;

a piston placed inside the housing and attached to a distal end of the reservoir wherein the piston is a magnet having a fixed polarity, and wherein lateral movement of the piston from a first end of the housing to a second end of the housing collapses the reservoir onto itself; and

a slider which can move laterally along an outer surface of the housing and wherein the movement of the slider from the first end of the housing to the second end of the housing moves the piston causing the reservoir to collapse onto itself.

16. The actuator of 15, wherein the slider is a magnet having a fixed polarity that is opposite the polarity of the piston.

17. The actuator of 15, wherein the slider has an open bracket shape.

18. The actuator of 15, wherein the slider has a closed bracket shape.

19. The actuator of 15, wherein the slider glides on ball bearings placed between the slider and the housing.

20. The actuator of 15, wherein the lateral movement of the slider along the outer surface of the housing is confined between two mechanical stops.

21. An actuator for a sealed fluid filled lens comprising:

a housing with an inner half and an outer half;

a plurality of compressible domes placed along the outer surface of the housing comprising:

a plurality of meta-stable domes placed along the outer surface of the inner half of the housing; and

a plurality of bi-stable domes placed along the outer surface of the outer half of the housing

wherein each bi-stable dome is placed directly across from a respective meta stable dome; and

a reservoir disposed within the housing wherein the reservoir is in fluid communication with the fluid filled lens, and wherein the reservoir is placed between the plurality of meta-stable domes and the plurality of bi-stable domes.

22. The actuator of 21, wherein each bi-stable dome is compressible into the respective meta-stable dome.

23. The actuator of 22, wherein each bi-stable dome exists in either a compressed state or a relaxed state.

24. The actuator of 23, wherein the compressed state of the bi-stable dome causes a local maximal compression of the reservoir.

25. The actuator of 23, wherein the relaxed state causes no compression of the reservoir.

26. The actuator of 23, wherein compression of the bi-stable dome causes compression of the reservoir.

27. The actuator of 21, wherein each meta-stable dome is compressible into the respective bi-stable dome.

28. The actuator of 27, wherein each meta-stable dome can exist in any state between a fully compressed state and a fully relaxed state.

29. The actuator of 28, wherein the fully compressed state causes a local maximal compression of the reservoir.

30. The actuator of 28, wherein the fully relaxed state causes no compression of the reservoir.

31. The actuator of 21, wherein the compressible domes are spaced equidistant along a length of the housing, the length being the longest dimension of the housing.

32. The actuator of 21, wherein compression of any bi-stable dome will return the respective meta-stable dome from any state of compression to the fully relaxed state.