We claim:

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

a housing;

a reservoir disposed within the housing; and

a compression arm having a first end that is fixed and a second end that is not fixed, wherein the compression arm is disposed adjacent to the reservoir, and

wherein said compression arm flexes to compress the reservoir.

2. The actuator of claim 1, further comprising:

a slider slidingly disposed within the housing and disposed adjacent to the compression arm,

wherein sliding the slider from the first end of the compression arm to the second end of the compression arm causes the slider to push the second end of the compression arm so as to compress the reservoir.

3. The actuator of claim 1, wherein the housing comprises a temple chassis and temple cover.

4. The actuator of claim 2, further comprising a wheel attached to the slider.

5. The actuator of claim 4, wherein the wheel is rotatably attached to the slider and wherein rotation of the wheel causes the slider to slide.

6. The actuator of claim 4, wherein translation of the wheel causes the slider to slide.

7. The actuator of claim 1, wherein the compression arm compresses the reservoir against a vertical surface of the housing.

8. The actuator of claim 1, wherein the compression arm compresses the reservoir against a horizontal surface of the housing.

9. The actuator of claim 1, wherein the first end of the compression arm is distal to a fluid lens attached to the actuator.

10. An actuator for a fluid-filled lens comprising:

a housing having a first end and a second end;

a reservoir disposed within the housing; and

a slider slidingly disposed within the housing and disposed adjacent to the reservoir,

wherein the slider includes a first end having a wedge shape configured to compress the reservoir, and

wherein sliding of the slider from the second end of the housing to the first end of the housing causes the first end of the slider to compress the reservoir.

11. The actuator of claim 10, further comprising a wheel attached to the slider.

12. The actuator of claim 11, wherein the wheel is rotatably attached to the slider and wherein rotation of the wheel causes the slider to slide.

13. The actuator of claim 11, wherein translation of the wheel causes the slider to slide.

14. The actuator of claim 10, wherein the slider compresses the reservoir against a vertical surface of the housing.

15. The actuator of claim 10, wherein the slider compresses the reservoir against a horizontal surface of the housing.

16. The actuator of claim 10, further comprising:

a pinion; and

a rack connected to the slider,

wherein rotation of the pinion causes teeth on the pinion to engage with and push teeth of the rack so as to move the slider.

17. The actuator of claim 10, further comprising:

a screw having an axis of rotation collinear with a line formed between the first and second ends of the housing; and

a rack connected to the slider,

wherein rotation of the screw causes teeth on the screw to engage with and push teeth of the rack so as to move the slide.

18. The actuator of claim 10, further comprising a pulley arrangement to slide the slider.

CLAIMS

1. An actuator (100) for a sealed fluid-filled lens comprising:
a housing (110);
a reservoir (150) disposed within the housing(110);
a compression arm (270) having a first end that is fixed and a second end that is not fixed, wherein the compression arm (270) is disposed adjacent to the reservoir(150), and wherein said compression arm flexes to compress the reservoir; and
a slider (140) slidingly disposed within the housing (110) and disposed adjacent to the compression arm (270), wherein sliding the slider (140) from the first end of the compression arm to the second end of the compression arm causes the slider to push the second end of the compression arm so as to compress the reservoir (150).

2. The actuator of claim 1, wherein the housing (110) comprises a temple chassis (120) and a temple cover (110).

3. The actuator of claim 1, further comprising a wheel (130) attached to the slider.

4. The actuator of claim 3, wherein the wheel (130) is rotatably attached to the slider (140) and wherein rotation of the wheel causes the slider to slide.

5. The actuator of claim 3, wherein translation of the wheel (130) causes the slider (140) to slide.

6. The actuator of claim 1, wherein the compression arm (270) compresses the reservoir (150) against a vertical surface (285) of the housing (110).

7. The actuator of claim 1, wherein the compression arm (270) compresses the reservoir (150) against a horizontal surface of the housing.

8. The actuator of claim 1, wherein the first end of the compression arm (270) is distal to a fluid lens (200) attached to the actuator.