WHAT IS CLAIMED IS:

1. A method for controlling functions in a powered ophthalmic lens, the method comprising the steps of:

sampling multiple sensors incorporated into the ophthalmic lens, the sensors measuring at least one of physiologic or environmental changes;

determining the results from the multiple sensors, including making comparisons to thresholds and comparisons to predetermined patterns;

aggregating the results from the multiple sensors to generate a single decision signal; and

configuring an actuator based on the single decision signal to implement a change in function of or maintain a function of the powered ophthalmic lens.

2. The method for controlling functions in a powered ophthalmic lens according to Claim 1, wherein the step of aggregating the results further comprises weighting the inputs based upon a predetermined set of conditions.

3. The method for controlling functions in a powered ophthalmic lens according to Claim 1, further comprising the step of signal conditioning the sampled output data from the multiple sensors.

4. The method for controlling functions in a powered ophthalmic lens according to Claim 3, wherein the step of signal conditioning includes one or more of filtering and comparing the sampled signals to baseline results or reference results.

5. The method for controlling functions in a powered ophthalmic lens according to Claim 1, wherein the step of sampling multiple sensors includes sampling sensors configured to sample at least one of external conditions and physiologic

changes not directly related to the function to control to augment the generation of the decision signal.

6. A powered ophthalmic lens, the powered ophthalmic lens comprising:

a contact lens including an optic zone and a peripheral zone; and

at least on electronic system incorporated into the peripheral zone of the contact lens, the electronic system including multiple sensors, a system controller and at least one actuator, the system controller configured to implement a process for controlling the functions of the powered ophthalmic lens, the process comprising the steps of sampling the multiple sensors, determining the results from the multiple sensors including making comparisons to thresholds and comparisons to predetermined patterns, aggregating the results from the multiple sensors to generate a single decision signal and configuring the actuator based upon the single decision signal to implement a change in function of or maintain a function of the powered ophthalmic lens.

7. A powered ophthalmic lens, the powered ophthalmic lens comprising:

a contact lens; and

at least on electronic system incorporated into the contact lens, the electronic system including multiple sensors, a system controller and at least one actuator, the system controller configured to implement a process for controlling the functions of the powered ophthalmic lens, the process comprising the steps of sampling the multiple sensors, determining the results from the multiple sensors including making comparisons to thresholds and comparisons to predetermined patterns, aggregating the results from the multiple sensors to generate a single decision signal and configuring the actuator based upon the single decision signal to implement a change in function of or maintain a function of the powered ophthalmic lens.

8. A powered ophthalmic lens, the powered ophthalmic lens comprising:

an intraocular contact lens; and

at least on electronic system incorporated into the intraocular lens, the electronic system including multiple sensors, a system controller and at least one actuator, the system controller configured to implement a process for controlling the functions of the powered ophthalmic lens, the process comprising the steps of sampling the multiple sensors, determining the results from the multiple sensors including making comparisons to thresholds and comparisons to predetermined patterns, aggregating the results from the multiple sensors to generate a single decision signal and configuring the actuator based upon the single decision signal to implement a change in function of or maintain a function of the powered ophthalmic lens.

WHAT IS CLAIMED IS:

1. A method for controlling functions in a powered ophthalmic lens to be worn on the eyes of an individual, the method comprising the steps of:

sampling multiple sensors incorporated into the ophthalmic lens,;

determining the results from the multiple sensors, including making comparisons to thresholds and comparisons to predetermined patterns;

aggregating the results from the multiple sensors to generate a single decision signal; and

configuring an actuator based on the single decision signal to implement a change in function of or maintain a function of the powered ophthalmic lens,

wherein the sensors measure at least one physiologic change, including pupil convergence, pupil position, pupil dilation, eyelid position and eye impedance, and environmental condition, including ambient light conditions and distance to object,

wherein the total time required to execute the method is equal to an individual's physiological response time.

2. The method for controlling functions in a powered ophthalmic lens according to Claim 1, wherein the step of aggregating the results further comprises weighting the results based upon a predetermined set of conditions.

3. The method for controlling functions in a powered ophthalmic lens according to Claim 1, further comprising the step of signal conditioning the sampled output data from the multiple sensors.

4. The method for controlling functions in a powered ophthalmic lens according to Claim 3, wherein the step of signal conditioning includes one or more of

filtering and comparing the sampled signals to baseline results or reference results.

5. The method for controlling functions in a powered ophthalmic lens according to Claim 1, wherein the step of sampling multiple sensors includes sampling sensors configured to sample at least one of external conditions and physiologic changes not directly related to the function to control to augment the generation of the decision signal.

6. A powered ophthalmic lens, the powered ophthalmic lens to be worn on the eyes of an individual, the powered ophthalmic lens comprising:

a contact lens including an optic zone and a peripheral zone; and

at least on electronic system incorporated into the peripheral zone of the contact lens, the electronic system including multiple sensors, a system controller and at least one actuator, the system controller configured to implement a process for controlling the functions of the powered ophthalmic lens, the process comprising the steps of sampling the multiple sensors, determining the results from the multiple sensors including making comparisons to thresholds and comparisons to predetermined patterns, aggregating the results from the multiple sensors to generate a single decision signal and configuring the actuator based upon the single decision signal to implement a change in function of or maintain a function of the powered ophthalmic lens,

wherein the sensors measure at least one physiologic change, including pupil convergence, pupil position, pupil dilation, eyelid position and eye impedance, and environmental condition, including ambient light conditions and distance to object,

wherein the total time required to execute the method is equal to an individual's physiological response time.

7. A powered ophthalmic lens, the powered ophthalmic lens comprising:

a contact lens; and

at least on electronic system incorporated into the contact lens, the electronic system including multiple sensors, a system controller and at least one actuator, the system controller configured to implement a process for controlling the

functions of the powered ophthalmic lens, the process comprising the steps of sampling the multiple sensors, determining the results from the multiple sensors including making comparisons to thresholds and comparisons to predetermined patterns, aggregating the results from the multiple sensors to generate a single decision signal and configuring the actuator based upon the single decision signal to implement a change in function of or maintain a function of the powered ophthalmic lens,

wherein the sensors measure at least one physiologic change, including pupil convergence, pupil position, pupil dilation, eyelid position and eye impedance, and environmental condition, including ambient light conditions and distance to object,

wherein the total time required to execute the method is equal to an individual's physiological response time.

8. A powered ophthalmic lens, the powered ophthalmic lens comprising:

an intraocular contact lens; and

at least on electronic system incorporated into the intraocular lens, the electronic system including multiple sensors, a system controller and at least one actuator, the system controller configured to implement a process for controlling the functions of the powered ophthalmic lens, the process comprising the steps of sampling the multiple sensors, determining the results from the multiple sensors including making comparisons to thresholds and comparisons to predetermined patterns, aggregating the results from the multiple sensors to generate a single decision signal and configuring the actuator based upon the single decision signal to implement a change in function of or maintain a function of the powered ophthalmic lens,

wherein the sensors measure at least one physiologic change, including pupil convergence, pupil position, pupil dilation, eyelid position and eye impedance, and environmental condition, including ambient light conditions and distance to object,

wherein the total time required to execute the method is equal to an individual's physiological response time.