CLAIMS

1. A vision training device, comprising:

a main body including at least one ocular hole positioned to correspond with an eye of a user wearing the vision training device, a line of sight axis being defined to intersect with the ocular hole;

a lens unit including a plurality of lenses respectively having different diopter values and a lens holder that supports the lenses;

a drive motor configured to move the lens holder so that one of the lenses of the lens unit is disposed on the line of sight axis; and

a controller configured to that control the drive motor such that a test lens selected from the plurality of lenses is disposed on the line of sight axis and to store an accommodation time indicating a period of time in which the eye becomes in an accommodated state to the test lens.

2. The vision training device according to claim 1, wherein

the lens holder is rotatably coupled to the main body by a rotation shaft, and

the lenses are disposed on the lens holder at angular intervals along a circumference of the lens holder.

3. The vision training device according to claim 1, wherein the control unit is configured to store the accommodation time for the test lens in response to an accommodation reflex confirmation signal input to a user input unit.

4. The vision training device according to claim 1, further comprising

a sensor module configured to detect the accommodated state of the eye of the user, wherein

the control unit is configured to store the accommodation time of the user for the test lens in response to an accommodation reflex confirmation signal input from the sensor module.

5. The vision training device according to claim 1, wherein the plurality of

lenses respectively have diopter values varying stepwise with a same diopter interval therebetween, and

the control unit is configured to measure and store the accommodation time when the diopter is increased from an adjacent lens and the accommodation time when the diopter is decreased from an adjacent lens.

6. The vision training device according to claim 1, further comprising

a user input unit that includes a training mode selection part, wherein

the control unit is configured to set a training time associated with each lens based at least in part on a stored accommodation time for the respective lens and cause the respective lens to be disposed on the line of sight axis during the training time when the training mode is selected through the user input unit.

7. The vision training device according to claim 6, wherein, in the training mode, the controller is configured to change the lens disposed on the line of sight axis after the lens is disposed on the line of sight axis for the training time for each of the plurality of lenses.

8. The vision training device according to claim 6, wherein the controller is configured to store the accommodation time of the user for a respective one of the lenses when an accommodation reflex confirmation signal is input through the user input unit during an operation in the training mode.

9. A vision training method, comprising:

providing a vision training device that is configured so that at least one of a plurality of lenses is selected and disposed along a line of sight of a user, the plurality of lenses respectively having different diopter values, and a line of sight axis being defined to correspond with the line of sight of the user;

selecting a test lens from the plurality of lenses and disposing the test lens on the line of sight axis; and

storing, in a non-transitory computer readable memory, an accommodation

time indicating a period of time in which the eye becomes in an accommodated state to the test lens.

10. The vision training method according to claim 9, further comprising:

driving a drive motor such that the test lens is selected from the plurality of lenses and disposed on the line of sight axis.

11. The vision training method according to claim 10, wherein

the driving includes rotating a lens holder about a rotation shaft, and

the lenses are disposed on the lens holder at angular intervals along a circumference of the lens holder.

12. The vision training method according to claim 9, wherein the storing includes storing the accommodation time for the test lens in response to an accommodation reflex confirmation signal input to a user input unit.

13. The vision training method according to claim 9, wherein the storing includes storing the accommodation time for the test lens in response to an accommodation reflex confirmation signal from a sensor module.

14. The vision training method according to claim 9, wherein

the plurality of lenses respectively have diopter values varying stepwise with a same diopter interval therebetween, and

the method includes measuring and storing the accommodation time when the diopter is increased from an adjacent lens and the accommodation time when the diopter is decreased from an adjacent lens.

15. The vision training method according to claim 9, further comprising:

setting a training time associated with each lens based at least in part on a stored accommodation time for the respective lens; and

positioning the respective lens on the line of sight axis during the training

time when the training mode is selected through a user input unit.

16. The vision training method according to claim 14, further comprising, in the training mode, changing the lens disposed on the line of sight axis after the lens is disposed on the line of sight axis for the training time for each of the plurality of lenses.

17. The vision training method according to claim 14, further comprising storing the accommodation time of the user for a respective one of the lenses when an accommodation reflex confirmation signal is input through the user input unit during an operation in the training mode.