[0008] Furthermore, in-office subjective astigmatism tests generally only determine a patient's axis prescription within 10 º of accuracy.

[0009] Thus, there exists a need for a more convenient, less costly, more accurate way for patients to determine and receive glasses and contacts prescriptions.

SUMMARY

[009a] According to a first aspect, there is provided a method for determining a corrective lenses prescription for a person implemented by a server and a communicatively coupled user terminal including a computerized screen and an input device, without the use of a refractor lens assembly, the method comprising separately, for each eye of the person: testing for a first component of the corrective lenses prescription by displaying a first diagram to the person via the computerized screen, and receiving a first user input, via the input device, in relation to at least one feature of the first diagram corresponding to a first measurement of the first component; testing for a second component of the corrective lenses prescription by adjusting a second diagram based on a skew function determined from the first measurement, displaying the second diagram to the person via the computerized screen, and receiving a second user input, via the input device, in relation to at least one feature of the second diagram corresponding to a second measurement of the second component; and determining, via the server, the corrective lenses prescription based on the first measurement and the second measurement, wherein each of the first diagram and the second diagram corresponds to a cylinder diagram or an axis diagram.

[009b] According to a second aspect, there is provided a method implemented by a user terminal including a computerized screen and an input device for determining a corrective lenses prescription for a person, without the use of a refractor lens assembly, the method comprising separately, for each eye of the person: testing for a first component of the corrective lenses prescription by displaying a first diagram to the patient via the computerized screen, and receiving a first user input, via the input device, in relation to at least one feature of the first diagram corresponding to a first measurement of the first component; testing for a second component of the corrective lenses prescription by adjusting a second diagram based on a skew function determined from the first measurement, displaying the second diagram to the patient via the computerized screen, and receiving a second user input, via the input device, in relation to at least one feature of the second diagram corresponding to a second measurement of the second component; and transmitting, from the user terminal to a server via a network, the first measurement and the second

measurement to enable the server to determine the corrective lenses prescription, wherein each of the first diagram and the second diagram corresponds to a cylinder diagram or an axis diagram.

[009c] According to a third aspect, there is provided a non-transitory computer readable medium including a plurality of instructions, which when executed by at least one processor, cause the at least one processor to operate with at least one display device and at least one input device to determine a corrective lenses prescription for a person comprising, for each eye of the person: determining, without the use of a refractor lens assembly, an astigmatism prescription for the person by, (i) presenting a first diagram to the person via the computerized screen, (ii) enabling the person to make at least one axis input corresponding to a first measurement, (iii) adjusting a cylinder diagram based on the first measurement, (iv) presenting the adjusted cylinder diagram to the person via the computerized screen, and (iv) enabling the person to make at least one cylinder input corresponding to a second measurement used to determine the corrective lenses prescription for the patient; and determining the corrective lenses prescription based on the first measurement and the second measurement.

[0010] The present disclosure relates generally to a system and method for determining the refractive error of a patient, more particularly determining the patient's refractive error by using a computerized screen or other suitable visual tool, and providing the patient with a corrective lenses prescription for the patient's preferred type of corrective lenses. The system and method do not require the trip or expense of a doctor visit, and are optimized for convenience and cost effectiveness.

[0011] In a general embodiment, the present disclosure provides a method for determining a corrective lenses prescription of a patient. The method includes, separately, for each eye of the patient, determining the astigmatism prescription of the patient via a computerized screen.

[0012] In an embodiment, determining the astigmatism prescription of the patient via the computerized screen includes presenting a first diagram to the patient via the computerized screen and enabling the patient to select at least one input. The input corresponds to an axis measurement. The method further includes presenting a second diagram to a patient via the computerized screen and enabling the patient to select at least one input. The input corresponds to a cylinder measurement.

[0013] In a further embodiment, the first diagram and the second diagram are a same diagram. In an alternative further embodiment, the first diagram and the second diagram are different diagrams.

[0014] In another further embodiment, the first diagram is a rotatable line. In a still further embodiment, the rotatable line is made up of at least two alternating colors. In yet a further embodiment, the at least two alternating colors are selected from the group consisting of the red family and the green family, respectively.

[0015] In an embodiment, the method is provided via an internet.

[0016] In an embodiment, the method includes sending the determined astigmatism prescription to at least one doctor for review and approval.

[0017] In an alternative embodiment, the present disclosure provides a method for determining a corrective lenses prescription of a patient. The method includes, separately, for each eye of the patient, determining the astigmatism prescription of the patient via a computerized

CLAIMS

1. A method for determining a corrective lenses prescription for a person implemented by a server and a communicatively coupled user terminal including a computerized screen and an input device, without the use of a refractor lens assembly, the method comprising separately, for each eye of the person:

testing for a first component of the corrective lenses prescription by

displaying a first diagram to the person via the computerized screen, and

receiving a first user input, via the input device, in relation to at least one feature of the first diagram corresponding to a first measurement of the first component;

testing for a second component of the corrective lenses prescription by

adjusting a second diagram based on a skew function determined from the first measurement,

displaying the second diagram to the person via the computerized screen, and

receiving a second user input, via the input device, in relation to at least one feature of the second diagram corresponding to a second measurement of the second component; and

determining, via the server, the corrective lenses prescription based on the first measurement and the second measurement,

wherein each of the first diagram and the second diagram corresponds to a cylinder diagram or an axis diagram.

2. The method according to Claim 1, further comprising determining a power of the corrective lenses prescription for the person via the computerized screen by:

(i) presenting a first power figure to the person via the computerized screen, wherein the first power figure is too small to be clearly seen by the person, and

(ii) enabling the person to make at least one input, via the input device, to increase the size of the first power figure until it can be just barely be made out by the person, wherein the at least one input corresponds to a first sphere measurement.

3. The method according to Claim 2, wherein determining the power of the corrective lenses prescription for the person via the computerized screen comprises:

(iii) presenting a second power figure to the person via the computerized screen, wherein the second figure is large enough to be clearly seen by the person, and

(iv) enabling the person to make at least one input, via the input device, to decrease the size of the second power figure just until it can no longer be made out by the person, wherein the at least one input corresponds to a second sphere measurement,

wherein a final sphere measurement is based, at least in part, on the first sphere measurement and the second sphere measurement for the power of the corrective lenses prescription.

4. The method according to Claim 1, wherein the first component includes at least one of a first cylinder component and a first axis component and the second component includes at least one of a second cylinder component and a second axis component.

5. The method according to Claim 1, wherein at least one of a size, position, symbol type, and color of at least one of the first diagram and the second diagram is determined based on received information about at least one of a prior prescription of the person and demographic of the person.

6. The method according to Claim 1, wherein the first diagram and the second diagram include the same features.

7. The method according to Claim 1, wherein the method is provided via an internet.

8. The method according to Claim 1, wherein the method further comprises sending the determined corrective lenses prescription to at least one doctor for review and approval.

9. The method according to Claim 1, wherein the corrective lenses prescription for the person further comprises at least one of a previously-determined axis prescription and a previously determined cylinder prescription.

10. The method according to Claim 1, wherein the second diagram is skewed additionally based on at least one of a previously-determined axis prescription, a previously determined cylinder prescription, and received information about a prior prescription of the person.

11. The method according to Claim 1, wherein the computerized screen comprises two or more computerized screens.

12. The method according to Claim 11, wherein at least one of the computerized screens is enabled to operate as a remote for at least one of the other computerized screens.

13. A method implemented by a user terminal including a computerized screen and an input device for determining a corrective lenses prescription for a person, without the use of a refractor lens assembly, the method comprising separately, for each eye of the person:

testing for a first component of the corrective lenses prescription by

displaying a first diagram to the patient via the computerized screen, and

receiving a first user input, via the input device, in relation to at least one feature of the first diagram corresponding to a first measurement of the first component;

testing for a second component of the corrective lenses prescription by

adjusting a second diagram based on a skew function determined from the first measurement,

displaying the second diagram to the patient via the computerized screen, and

receiving a second user input, via the input device, in relation to at least one feature of the second diagram corresponding to a second measurement of the second component; and

transmitting, from the user terminal to a server via a network, the first measurement and the second measurement to enable the server to determine the corrective lenses prescription,

wherein each of the first diagram and the second diagram corresponds to a cylinder diagram or an axis diagram.

14. The method according to Claim 13, wherein at least one of a size, position, symbol type, and color of the first diagram is determined based on received information about at least one of a prior prescription of the person and a demographic of the person.

15. The method according to Claim 13, wherein the method is provided via an internet.

16. The method according to Claim 13, wherein the method further comprises sending the determined corrective lenses prescription to at least one doctor for review and approval.

17. The method according to Claim 13, wherein the corrective lenses prescription for the person further comprises at least one of a previously-determined axis prescription and a previously determined cylinder prescription.

18. The method according to Claim 13, wherein the second diagram is skewed additionally based on at least one of a previously-determined axis prescription, a previously determined cylinder prescription, and received information about a prior prescription of the person.

19. The method according to Claim 13, wherein the computerized screen comprises two or more computerized screens.

20. The method according to Claim 19, wherein at least one of the computerized screens is enabled to operate as a remote for at least one of the other computerized screens.

21. A non-transitory computer readable medium including a plurality of instructions, which when executed by at least one processor, cause the at least one processor to operate with at least one display device and at least one input device to determine a corrective lenses prescription for a person comprising, for each eye of the person:

determining, without the use of a refractor lens assembly, an astigmatism prescription for the person by,

(i) presenting a first diagram to the person via the computerized screen,

(ii) enabling the person to make at least one axis input corresponding to a first measurement,

(iii) adjusting a cylinder diagram based on the first measurement,

(iv) presenting the adjusted cylinder diagram to the person via the computerized screen, and

(iv) enabling the person to make at least one cylinder input corresponding to a second measurement used to determine the corrective lenses prescription for the patient; and

determining the corrective lenses prescription based on the first measurement and the second measurement.

22. The non-transitory computer readable medium according to Claim 21, further comprising instructions, which when executed by the at least one processor, cause the at least one

processor to operate with the at least one display device and the at least one input device to determining the corrective lenses prescription based on a final sphere measurement by:

determining a distance of the person from a computerized screen;

presenting a first power figure to the person via the computerized screen, wherein the first power figure is too small to be clearly seen by the person;

enabling the person to make at least one input to increase the size of the first power figure until it can just barely be made out by the person, wherein the determined distance of the person from the computerized screen is used in conjunction with the at least one input to calculate a first sphere measurement;

presenting a second power figure to the person via the computerized screen, wherein the second power figure is large enough to be clearly seen by the person, and

enabling the person to make at least one input to decrease the size of the second power figure just until it can no longer be made out by the person, wherein the determined distance of the person from the computerized screen is used in conjunction with the at least one input to calculate a second sphere measurement,

wherein the final sphere measurement is based, at least in part, on the first sphere measurement and the second sphere measurement, and

wherein the distance of the person from the computerized screen is determined using, in part, a camera.