Claims

1. An augmented vision system (1) comprising:

a displaying device (3) comprising:

a fixing element (31) for coupling the displaying device (3) to a head-mountable component (90) configured to be positioned in front of a face (102) of a user (100), and

a display body (32) ~~being~~ coupled to said fixing element (31) by ~~means of~~ a pivoting link (321, 322, 323) ~~providing a rotation of the display body (32) with respect to the fixing element (31) around a rotational axis (38)~~;

wherein the display body (32) comprises~~:~~

a display (33) configured to display a thermal data and/or a thermal image (331) provided by a thermal sensing device (2)~~;~~, and

a first surface portion (325) configured to enter in contact with a forehead of the user (100)~~, when said head-mountable component (90) is positioned in front of the face (102) of the user (100), so as to rotate the display body (32) to a predefined angular positioning (381) around the rotational axis (38).~~; and

wherein the pivoting link (321, 322, 323) provides rotation of the display body (32), such that the display body (32) can rotate with respect to the fixing element (31) around a rotational axis (38) in response to the forehead of the user entering into contact with the first surface portion (325) when the fixing element (31) is fastened to the head-mountable component (90).

2. The augmented vision system according to claim 1, wherein the displaying device (3) comprises an adjusting mechanism (311, 321) providing a relative translation of said first surface portion (325) with respect to the fixing element (31).

3. The augmented vision system according to claim 2, wherein said adjusting mechanism comprises a slide link (311, 321) providing a relative translation of the display body (32) with respect to the fixing element (31) along a translation axis (39) perpendicular to the rotational axis (38).

4. The augmented vision system according to claim 3, wherein the slide link (311, 321) is configured to indicate a plurality of discrete positions along the translation axis (39)~~,~~, ~~preferably~~ and wherein the slide link (311, 321) ~~being~~ is configured to retain the display body (32) when positioned at one of said plurality of discrete positions with respect to the fixing element (31).

5. The augmented vision system according to claim 1, wherein the displaying device (3) ~~being~~ is configured to rotate the display body (32) for pushing the first surface portion (325) against the forehead of the user (100)~~,~~ when the head-mountable component (90) is positioned in front of the face (102) of the user (100).

6. The augmented vision system according to claim 5, wherein the display body (32) comprises a second surface portion (326) configured to enter in contact with a portion of the fixing element (31) and/or of the head-mountable component (90)~~,~~ when the head-mountable component (90) is positioned in front of the face (102) of the user (100)~~,~~, and wherein ~~preferably~~ the display body (32) ~~comprising~~ comprises a resilient portion operating between the first surface portion (325) and the second surface portion (326).

7. The augmented vision system according to claim 3, wherein the ~~displaying device~~display body (32) is detachable from the fixing element (31), ~~preferably~~ by means of the slide link (311, 321).

8. The augmented vision system according to claim 1, wherein the fixing element (31) is removably fastened to the head-mountable component (90).

9. The augmented vision system according to claim 8, wherein the fixing element comprises at least a resilient portion configured to provide an elastic force operating on one or more distinct portions of the head-mountable component (90) so as to removably retain the fixing element (31) to the head-mountable component (90).

10. The augmented vision system according to claim 1, wherein the display is a see-through-display (33).

11. The augmented vision system according to claim 1, wherein the thermal sensing device (2) is a head-mountable thermal sensing device (2)~~;~~, and wherein ~~preferably~~ the thermal sensing device (2) is configured to provide thermal data and/or thermal images to the display (33) by means of a wireless link (4).

12. The augmented vision system according to claim 1, wherein the thermal sensing device (2) comprises~~ing~~:

a head-mountable base (21);

a sensing body (22) coupled to the base (21) and comprising a thermal camera (221) for sensing temperatures of an object along a sensing orientation (223); and

a camera adjusting mechanism for adjusting an angular positioning ~~(a)~~ of the sensing orientation (223) of the thermal camera (221) with respect to the head-mountable base (21)~~, preferably~~ around a rotating axis (24).

13. The augmented vision system according to ~~the~~ claim ~~16~~12, wherein the thermal camera (221) is ~~detachable~~ detachably coupled to the head-mountable base (21).

14. The augmented vision system according to claim 1, wherein the head-mountable thermal sensing device (2) is fastened to a head-covering (9)~~, preferably~~ by means of the head-mountable base (21).

15. The augmented vision system according to claim 14, wherein the head-mountable component (90) is coupled with the head-covering (9)~~, preferably~~ by means of a resilient element so as to provide an elastic force pushing the head-mountable component (90) against the face (102) of the user (100).

16. The augmented vision system according to claim 14, wherein the head covering (9) ~~being~~ is a ~~protective head covering, notably a firefighter helmet (9), a soldier helmet, a policeman helmet, a rescuer helmet, a cyclist helmet or a driver~~ helmet.

17. The augmented vision system according to claim 18, wherein the head-mountable component (90) is an eyewear, a mask, ~~a face shield~~ or a visor ~~(90)~~ of the head covering (9).

18. The augmented vision system according to claim 1, wherein the display body (32) is configured to rotate to a predefined angular positioning (381) around the rotational axis (38).

~~18.~~19. A method for wearing an augmented vision system, the method comprising steps of: fastening a fixing element (31) of a displaying device (3) to a head-mountable component (90) configured to be positioned in front of a face (102) of a user (100);

rotatably coupling a display body (32) of the displaying device (3) to said fixing element (31); and

rotating the display body (32) around a rotational axis (38) to a given angular position with respect to the fixing element (31) in response to a first surface portion (325) of the display body (32) entering into contact with a forehead of the user (100) when ~~by~~

~~positioning~~ the head-mountable component (90) is positioned in front of the face (102) of the user (100).

~~19.~~20. The method according to claim ~~18~~19, wherein the step of coupling the display body (32) ~~comprises a step of:~~includes

positioning the display body (32) with respect to the fixing element (31) along a translation axis (39) perpendicular to the rotational axis (38) of the display body (32).

~~20.~~21. The method according to claim ~~18~~19, wherein the thermal sensing device (2) comprises a thermal camera (221), the method further comprising steps of:

fastening ~~a~~ the thermal camera (221) to a head covering (9); and

when the head-mountable component (90) is positioned in the front of the face (102) of the user (100), adjusting a sensing orientation (223) of the thermal camera (221) with respect to the head covering (9).