Fig. 5 illustrates the mirror system in operation adjusting to a person detected at a height of less than a pre-determined level; and

Fig. 6 illustrates the mirror system in operation adjusting to a person detected at a height of equal or more than a pre-determined level.

Other arrangements of the invention are possible and, consequently, the accompanying drawings are not to be understood as superseding the generality of the description of the invention.

Description of Embodiments of the Invention

In accordance with an embodiment of the invention and as shown in Fig. 1 to 3, there comprises a mirror system 10. The mirror system 10 comprises a mirror 12 and a mount 14. The mount 14 comprises a drive mechanism 30 operable to rotate the mirror 12 between at least two positions upon the receipt of control inputs for actuating the drive mechanism 30. Drive mechanism may be a motor.

Mirror 12 comprises a reflective surface 22 and a frame 24. The reflective surface 22 is highly polished stainless steel. Frame 24 is typically made of softer material relative to the reflective surface 22, such as, but not limited to nylon. Frame 24 is operable to protect the mirror 12 and prevent users from being injured by the sharp edges associated with the reflective surface 22. Positioned along ~~the~~ a longitudinal axis (in particular a vertical axis) of the mirror 12 are at least two sensors (first and second sensors) 26. Sensors 26 are operable to detect:-

(i.) an individual approaching the mirror (i.e. the presence of an individual within range of the sensor); and

(ii.) whether the individual is at a certain predetermined height above ground, which is the surface the individual stand on when he/she approaches the mirror;

and thereby send signals for actuating the motor 30 to rotate the mirror between the at least two positions. Preferably, sensors 26 are infra-red sensors. The infra-red signals may be sent to a processor or motor driver (not shown) in the form of an integrated (IC) chip for processing and conversion to the necessary electrical signals to actuate the motor. To maintain the size

below certain form factor, the motor driver may be integrated with the motor 30.

In an example arrangement comprising two infrared sensors 26, a first sensor 26a is located at a first pre-determined position along the ~~longitudinal~~ vertical axis of the mirror, and the second sensor 26b is located at a second predetermined position along the ~~longitudinal~~ vertical axis of the mirror. It is to be appreciated that when the mirror 12 is mounted, the second sensor 26b is at a higher height than the first sensor 26a, relative to the ground.

Mount 14 comprises a mounting plate 32 for affixing the mirror 12 onto a suitable surface, such as the wall of a bathroom, via fastening means 34 such as but not limited to, screws, nuts, bolts etc. Such fastening means 34 are typically known to a skilled person of the art and will not be further elaborated. Motor 30 may be a stepper, alternating current (AC) or direct current (DC) motor operable to provide a synchronous rotational speed to rotate the mirror 12 between the desired positions. On the mount 14 are disposed two stoppers 36 to restrict the movement of the mirror 12 between the desired two positions. One of the stopper 36a may further comprise a magnet 38 to hold the mirror 12 at a default position. In some embodiments, both the stoppers 36 may comprise magnet 38 and the stoppers 36 may be covered with a thin layer of resin to prevent damaging the magnets.

The motor 30 may comprise damping means 40 to damp and control the rate of rotation of the mirror and avoid 'jerky' actions and to smoothen the rotational movement between the at least two positions. Such a damping means 40 may be in the form of a damping hinge 40.

The mirror system 10 will next be described in the context of its operation.

In an example arrangement, the mirror 12 is rotatable between a first position and a second position. The first position may be at a zero inclination with respect to the surface the mirror system 10 is mounted on. The second position may be a ten degrees downward inclination with respect to the surface it is mounted on. The first pre-determined position of first sensor 26a may be at a level of 800 millimetres to 1300 millimetres. The positioning of the second sensor 26b may be at a level of 1400 millimetres to 1600 millimetres, preferably around 1500 millimetres. In operation, the sensors 26 are

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(ii.) whether the individual is at a certain predetermined height above ground, which is the surface the individual stand on when he/she approaches the mirror;

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