rubber stamps are alternative printing methods. A full-color polymer LED fabricated by ink-jet printing has been demonstrated using a solution of semiconducting polymer in a common solvent as the ink.

[0262] As reported in Science Observer, November-December, 1998 "Printing Plastic Transistors" plastic transistors can be made transparent, so that they could be used in display systems incorporated in an automobile's windshield. The plastic allows these circuits to be bent along the curvature of a windshield or around a package. For example, investigators at Philips Research in The Netherlands have developed a disposable identification tag that can be incorporated in the wrapping of a soft package.

[0263] 8. Glare Reducing Sun Visor

[0264] **FIG. 21** illustrates the interior of a passenger compartment with a rear view mirror **932**, a camera for viewing the eyes of the driver **934** and a large, generally transparent visor **930**. The sun visor **930** is normally largely transparent and is made from electrochromic glass, suspended particle glass or a liquid crystal. device or other comparable devices. The camera **934** images the eyes of the driver and looks for a reflection indicating that glare is impinging on the driver's eyes. The camera system may have a source of infrared or other frequency illumination that would be momentarily activated to aid in locating the driver's eyes. The driver's eyes can also be located in any means, e.g., by determining the location of the driver's head and extrapolating the location of the eyes. Once the eyes have been located, the camera monitors the area around the eyes for an indication of glare. The camera system in this case would not know the direction from which the glare is originating; it would only know that the glare was present. The glare blocker system can then darken selected portions of the visor to attempt to block the source of glare and would use the observation of the glare around the eyes of the driver as feedback information. When the glare has been eliminated, the system maintains the filter perhaps momentarily reducing it from time to time to see that the source of glare has not stopped.

[0265] If the filter is electrochromic glass, a significant time period is required to activate the glare filter and therefore a trial and error search for the ideal filter location could be too slow. In this case, a non-recurring pattern can be placed in the visor such that when light passes through the visor and illuminates the face of the driver, the location where the filter should be placed can be easily determined. That is, the pattern reflection off of the face of the driver would indicate the location of the visor through which the light causing the glare was passing. Such a structured light system can also be used for the SPD and LCD filters but since they act significantly more rapidly it would serve only to simplify the search algorithm for filter placement.

[0266] A second photo sensor can also be used pointing through the windshield to determine only that glare was present. In this manner when the source of glare disappears the filter can be turned off. Naturally, a more sophisticated system as described above for the windshield system whereby the direction of the light is determined using a camera type device can also be implemented.

[0267] The visor **930** is illustrated as substantially covering the front windshield in front of the driver. This is possible since it is transparent except where the filter is applied, which would in general be a small area. A second visor, not shown, can also be used to cover the windshield for the passenger side that would also be useful when the light-causing glare on the driver's eyes enters thought the windshield in front of the passenger or if a passenger system is also desired. In some cases, it might even be advantageous to supply a similar visor to cover the side windows but in general standard opaque visors would serve for both the passenger side windshield area and the side windows since the driver really in general only needs to look through the windshield in front of him or her.

[0268] A smaller visor can also be used as long as it is provided with a positioning system or method. The visor really only needs to cover the eyes of the driver. This could either be done manually or by electric motors. If electric motors are used, then the adjustment system would first have to move the visor so that it covered the driver's eyes and then provide the filter. This could be annoying if the vehicle is heading into the sun and turning and/or going up and down hills. In any case, the visor should be movable to cover any portion of the windshield where glare can get through, unlike conventional visors that only cover the top half of the windshield. The visor also does not need to be close to the windshield and the closer that it is to the driver the smaller and thus the less expensive it can be.

[0269] As with the windshield, the visor of this invention can also serve as a display using plastic electronics as described above either with or without the SPD or other filter material. Additionally, visor like displays can now be placed at many locations in the vehicle for the display of Internet web pages, movies, games etc. Occupants of the rear seat, for example, can pull down such displays from the ceiling, up from the front seatbacks or out from the B-pillars or other convenient locations.

[0270] 9. Seatbelt Adjustment

[0271] Seatbelts are most effective when the upper attachment point to the vehicle is positioned vertically close to the shoulder of the occupant being restrained. If the attachment point is too low the occupant experiences discomfort from the rubbing of the belt on his shoulder. If it is too high, the occupant may experience discomfort due to the rubbing of the belt against his neck and the occupant will move forward by a greater amount during a crash, which may result in his head striking the steering wheel. Short stature people in particular frequently experience discomfort from an improperly adjusted seatbelt anchorage point. For these reasons, it is desirable to have the upper seatbelt attachment point located slightly above the occupant's shoulder. To accomplish this for various sized occupants, the location of the occupant's shoulder must be known which can be accomplished by the vehicle interior monitoring system described herein. Such a system is illustrated in **FIG. 13** that is a side view of a seatbelt anchorage adjustment system. In this system, a transmitter and receiver (transducer or transceiver) **520** is positioned in a convenient location, such as the headliner, located above and to the outside of the occupant's shoulder. A narrow beam **521** of energy can be transmitted from transducer **520** in a manner such that it irradiates or illuminates the occupant's shoulder and headrest. An appropriate pattern recognition system as described above is then used to determine the location and position of the occupant's