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(54) **LOW COST HUD USING STEREO AND HEAD TRACKING**

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(57) **ABSTRACT**

A system for displaying a stereo image is disclosed. The system includes a stereoscopic head up display (HUD) that includes a combiner and a display configured to display a stereo image. The system further includes either a head tracking sensor or an eye tracking sensor configured to generate a tracking dataset. The system further includes a processor and a memory with instructions that cause the processor to receive the tracking dataset, generate a distortion map based on the tracking dataset and a distortion function, receive a media stereo image, generate a stereo signal based on the distortion map and the media stereo image, and transmit the stereo signal to the display. The system is capable of conveying an image to an operator in the absence of a relay lens.