ABSTRACT OF THE DISCLOSURE

CAPTURING IMAGES OF MOVING OBJECTS WITH A MOVING ILLUMINATION POINT SOURCE

An imaging system that is capable of capturing images of moving objects as they are moving with minimal blurring by moving a point source of illumination such that the position from which illumination is projected is changed as the object moves to ensure that the position of the image projected onto an imaging plane remains substantially effectively stationary. The position from which illumination is projected functions as a point source of illumination. A image sensor of the imaging system is positioned in the imaging plane and receives illumination projected from the position of the illumination source that passes through the moving object. The image sensor produces electrical signals in response to the received illumination. Because the image of the moving object remains effectively stationary on the image sensor, which is located in the imaging plane, an image of at least a portion of the moving object can be constructed with minimal blurring and without having to halt the object to capture an image of it. Because it is not necessary to halt the object and allow the object to settle before capturing an image of it, the throughput of the imaging system is increased and the captured images are greatly improved.

FIG. 1

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