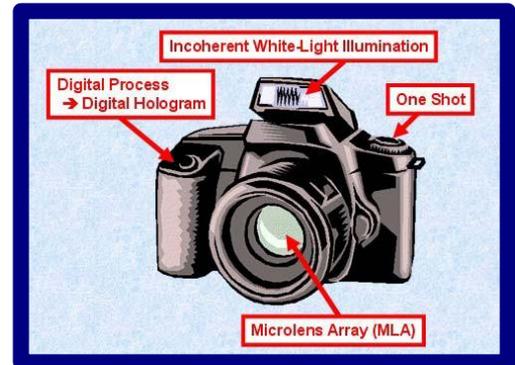


White-Light Single-Shot Holographic Recorder

The holographic recorder is an advanced solution that facilitates the capture and processing of images under regular lighting conditions to produce realistic three-dimensional (3-D) objects.

Goals and Benefits

- To the human eye, a hologram produces an authentic 3-D reconstruction, exhibiting accurate depth cues and requiring no additional viewing devices.
- Holograms enable the efficient and highly dense storage of 3-D information.
- The proposed device supports the single shot recording of a hologram using a digital camera, under regular, incoherent white-light conditions, and with no special stability requirements, overcoming the constraints imposed by the conventional hologram recording process.



Potential Commercial Uses and Market

A wide variety of applications including, among others, 3-D medical imaging (including endoscopy), microscopy, astronomy, and 3-D videos for entertainment purposes.

Development Stage and Development Status Summary

A prototype has been designed on an optical table.

Development plan

- Optimize structure parameters of the microlens array and of the digital camera
- Integrate the microlens array into the digital camera
- Optimize the digital process and incorporate it inside the digital camera

Research Team

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Patent Status

Patent pending.

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