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INTEGRATED CAMERA CIRCUIT INCLUDING IMAGE SENSOR, IMAGE PROCESSING, AND PRINTER DRIVE CIRCUITS

Field of the Invention

The present relates substantially to the concept of a disposable camera having instant printing capabilities and in particular, discloses A Low Cost Disposable Camera System.

Background of the Invention

Recently, the concept of a "single use" disposable camera has become an increasingly popular consumer item. Disposable camera systems presently on the market normally include an internal film roll and a simplified gearing mechanism for traversing the film roll across an imaging system including a shutter and lensing system. The user, after utilising a single film roll returns the camera system to a film development centre for processing. The film roll is taken out of the camera system and processed and the prints returned to the user. The camera system is then able to be re-manufactured through the insertion of a new film roll into the camera system, the replacement of any worn or wearable parts and the re-packaging of the camera system in accordance with requirements. In this way, the concept of a single use "disposable" camera is provided to the consumer.

Recently, a camera system has been proposed by the present applicant which provides for a handheld camera device having an internal print head, image sensor and processing means such that images sense by the image sensing means, are processed by the processing means and adapted to be instantly printed out by the printing means on demand. The proposed camera system further discloses a system of internal "print rolls" carrying print media such as film on to which images are to be printed in addition to ink to supplying the printing means for the printing process. The print roll is further disclosed to be detachable and replaceable within the camera system.

Unfortunately, such a system is likely to only be constructed at a substantial cost and it would be desirable to provide for a more inexpensive form of instant camera system which maintains a substantial number of the quality aspects of the aforementioned arrangement.

In particular, in any "disposable camera" it would be desirable to provide for a simple and rapid form of replenishment of the consumable portions in any disposable camera so that the disposable camera can be readily and rapidly serviced by replenishment and return to the market place.

It would be further desirable to provide for a simple means of storage of replenishable portions of a disposable camera system to allow for their rapid replenishment.

It would be further desirable to provide, in such a camera system, an ink cartridge for the storage of inks to be utilized in the printing out of images.

It would be desirable to provide for an extremely low cost camera system having as great quality as possible. In this respect, the camera system, as previously proposed should include mechanisms for sensing and processing sensed images in addition to mechanisms for printing out the images on print media via a printhead system. It would be further desirable to provide for a system having a convenient and compact arrangement of components such that they can be inexpensively manufactured in an inexpensive manner so as to allow for the readily disposable form of printing,

In any form of disposable camera arrangement, there will be the attraction for clone manufacturers to attempt to copy the process of refurbishing a used camera so as to derive profit from the refurbishment process. Unfortunately, such refurbishment may cause untold damage to the camera in particular in use of inappropriate inks and print media within the camera. The inappropriate use of such materials may result in an inferior quality product.

