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Abstract
With the progress of era and technology, the image capture systems become more and more indispensable in our daily life. The demand of the image capture system is increasing constantly in many applications, such as digital camera, experimental recording and security systems. Especially, the research of wireless sensor networks also prevails at present, so that maybe the image capturer will be one of the sensor components. Most of cameras, video cameras and monitor systems in the market are high-price products. With the image capture systems in widespread use gradually, the demand of low-price image capture system will be one of the development trends.

Considering the issue of low cost, this paper dedicates to design and implement a low-price, user friendly and widely applied image capture system by using an 8-bit high-speed MCU as a key controller. A modular design methodology is adopted in this project which includes image sensor, the image data storing and the data transmission interface modules. The implemented image capture system has several main functions, namely, automatically image-catch according the light change; automatically catch images in succession; and display images in PC easily through USB interface. Due to these functions, the implemented systems can be applied in many applications.
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