

Finger Photo Editor

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Abstract

The Finger Photo Editor is a unique tool for editing digital photographs. Instead of having to use a mouse to select editing options and areas of the picture, the user will do all of this with their fingers, making this editor a much more natural tool to use. This project breaks up into two main parts: gesture recognition using the camera as a sensor, and the graphics involved with the manipulation of the photograph on the screen. The camera will be pointed downward at a black rectangle on a white table surface. The black area will be divided into two sections, left and right, in which the user's corresponding hand will reside. The left hand will be able to select editing options down the left side, including: Crop, Enlarge, and Rotate. Then the right hand will select, for example, the locations of two opposite corners of the desired cropped picture. The user will be given visual feedback on the screen of where his left and right index fingers are pointing. Because the main focus of this project is the natural interface for the manipulation of digital images, using an actual digital photograph would present unrelated challenges and therefore will not be implemented unless there is time after the rest has been implemented.