

**Title: FPGA iPad**

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We will recreate the iPad experience of manipulating images using finger gestures using an FPGA, NTSC camera and VGA display. The NTSC camera will capture the user's gestural input. This will include using a black glove with white fingertips to make it easier for the camera to see motion. The FPGA will convert the camera data into image processing commands as well as process the images accordingly. At minimum, our design will allow a user to change the size of an image by moving their fingers closer or farther together. As well, the system will only manipulate a single image stored on an SD card. Once achieving the baseline goal, we want to expand the functionality of our project to include rotating and translating the image on the screen. If we have extra time, we plan to be able to manipulate video as well as static images .