Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science
6.111 - Introductory Digital Systems Laboratory

Final Project Check Off Sheet

Project Title: Fingerprint Identification System
Student Names: Bashira Chowdhury, Cheryl Texin
TA Name: Theodoros Konstantakopoulos
TA Signature/Date:

Design

- ☐ Overall block diagram
- ☐ State transition diagrams, Block Diagrams, Code for *Bashira*:
  -Video Decoder Controller
  -Image Capture
  -Verification Result Display (VGA)
- ☐ State transition diagrams, Block Diagrams, Code for *Cheryl*:
  -Image Processing Controller
  -Verification Filters

Functionality

- ☐ Demonstrate print image capture via camera interface, video decoder, and VGA interface. *Bashira*
- ☐ Demonstrate filters performing edge detection on the raw image. *Cheryl*
- ☐ Demonstrate the creation of a print database using the ZBT SRAM. *Both*
- ☐ Demonstrate proper communication between the print acquisition and print identification modules (show that the image being processed is from the acquisition modules).
- ☐ Demonstrate the system identifying a print with the same orientation as a print in the database.

Discussion

1. Describe the data path from the analog camera input to the digital raw image stored on the SRAM.

2. How does the image processing FSM access the entire SRAM simultaneously?

3. What are the strengths and weaknesses of your design?