

Massachusetts Institute of Technology
Department of Electrical Engineering and Computer Science
6.111 - Introductory Digital Systems Laboratory (Spring 2006)

Final Project Check Off Sheet

Project Members: Xinpeng Huang, William Putnam

6.111 Staff Member Signature/Date:

You must show a TA the following for check off:

Video and Computer Interface: Xinpeng Huang

- Take in composite camera data, convert it into RGB color format, store it in block memory, and demonstrate by reading the RAM and observing live camera data on the VGA display.
- Adjust the smaller version of the projected screen to fit the computer's display.
- Be able to control mouse through PS/2 computer port. This will be tested by hooking up the PS/2 interface to buttons on the labkit and controlling the mouse with these buttons.

Image Processing and Control: William Putnam

- Find the pixels corresponding to the center of the laser pointer in the video input. The laser pointer will be moved around on a wall and the image processing will output a red dot on a black screen through VGA to the monitor. This dot will mimic the behavior of the laser pointer.

- Find the pixels corresponding to the top left and bottom right corners of the projected computer display. (These corners will be marked with green squares on the VGA display.)



- Build control FSM that can take in start and stop signals from the labkit to begin operation of the complete system.



- Integrate the various components into the complete system.



Connect the video input to the image processing and the corner finding module to the scaler and demonstrate functionality on the VGA display.