

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: David A. Blau, Uzoma A. Orji, Reesa Phillips

6.111 Staff Member Signature/Date:

You must show a TA the following for check off:

**User Interface: Uzoma Orji**

- Decode camera input from the ADV7185 and convert television signal to output to a VGA monitor.
- Demonstrate glove detection algorithm by pointing camera at user and displaying the location of gloves on a VGA monitor.
- Detect a forward punch by measuring its acceleration using the ADXL320 accelerometers and the AD7827 ADC. The translated voltage computed from the acceleration of the punch will be displayed on the labkits.

**Control Unit: David Blau**

- Show working single player boxing demo using labkit buttons
- Show buttons from second labkit affecting opponent fighters glove positions on first labkit.
- Show, on second labkit, working display of fighters and gloves computed from first labkits control unit.
- Show working multiplayer boxing demo using two labkits (and labkit buttons)

- Demonstrate an AI that: moves randomly, punches the player randomly, and blocks when aligned with a player's glove
- (Extra) Demonstrate AI that: employs combinations of punches, takes advantage of player's recoil delay

**Imaging & Audio: Reesa Phillips**

- Display stationary background such as boxing ring and labels for each player and the remaining time
- Display time left and functional energy and life bars using labkit buttons
- Upload and display different images from ROM using labkit switches
- Upload and play different audio samples from ROM using labkit switches
- Create display for each of the following modes: Start Mode, Play Mode, In Between Rounds Mode, Game Over Mode
- Demonstrate switching between modes using labkit switches
- (Extra) Add extra images such as the audience, referee, and card girl

**Overall**

- Show a working boxing demo in one player and two player modes.
- **Be able to respond to any of the following questions:**
- What changes/additions would be added if time permitted?
- Can Reesa beat up Uzoma?