

Brad Foran
Justin Knox
CET402 – Progress Report
Professor Grossman
September 20, 2007

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Milestones Completed to Date

Project Summary
Purchase L.E.D.'s, Camera and Batteries
Submit Project Proposal
Oral Report
Progress Report 1
Progress Report 2

Tasks Completed to Date

Project isolation and identification
Develop basic image processing code
Research DSP chips
Software Development – Motion Detection
HCS12 Serial Communication
Work on Progress Report 2
Research and buy DSP chip

Tasks Rescheduled

Learn the DSP Chip

Tasks Eliminated

Build DSP hardware requirements

Current Task

Prepare for partial test (Image Processing Test (Sign Off))
Work on Oral Report 2

Next Milestone

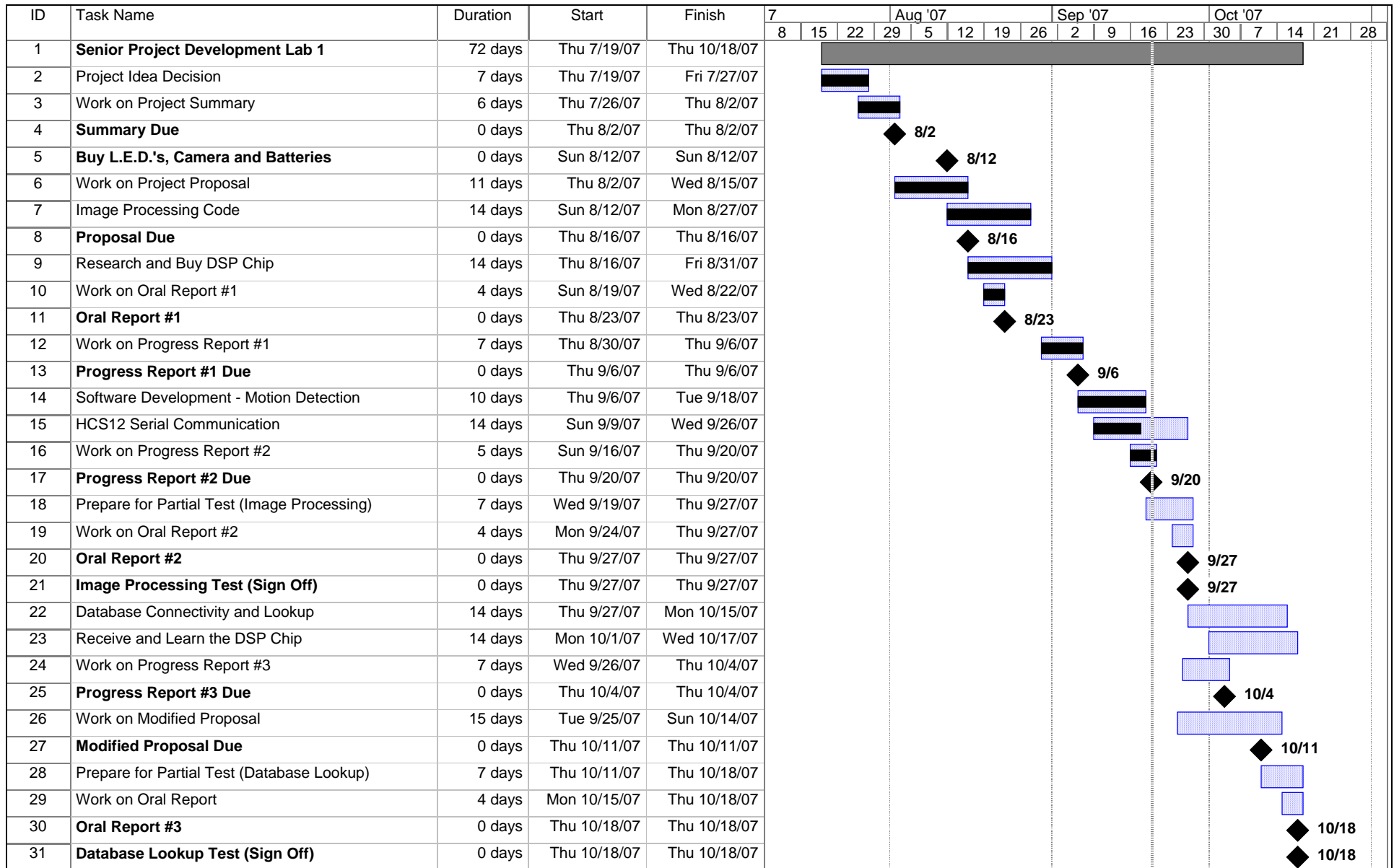
Oral Report 2
Image Processing Test (Sign Off)

Description of Progress and Testing

Our progress is steady and currently our project is on time and on schedule. In the past two weeks we completed three additional tasks. This week, we finished developing the prototype image processing and motion detection software, which currently tracks one LED's movements to determine whether the LED is moving Up, Down, Left, or Right. This motion is then confirmed through a coordinate display consisting of a triangle which points in the direction of movement. When there is no movement, a circle is displayed




indicating that an LED has been detected. Also within these last two weeks, we were able to successfully engage in serial communication between our PC and the HCS12, through 9600 baud, no parity bits, 8 bits total transmission, and 1 stop bit configuration. The third task we were able to accomplish was selecting and purchasing our DSP chip; the Analog Devices Blackfin BF537. The chip is a 600MHz 16/32 bit RISC processor. We mainly purchased this chip because of its interface with Analog Devices VisualDSP++ Software. This software will enable us to generate filters and audio effects in a real-time environment, which are then processed on the DSP. Through purchasing the BF537's development kit, we were able to eliminate task 18 which was to build the DSP chips subsystem hardware requirements (which could have turned into a project all on its own).

Through all of the great activity in the last two weeks, we are currently on schedule, and are now working toward our next two goals, which is our first project sign-off, and oral presentation 2.



Project: CET402 - Senior Project 1
Brad Foran & Justin Knox
Date: Thu 9/20/07

Task 
Split 
Progress 

Milestone 
Summary 
Project Summary 

External Tasks 
External Milestone 
Deadline 