



EMBEDDED SYSTEMS

Assignment 1

CODE MANAGEMENT



- Review the Git Intro slides found on TED
- Sign up for BitBucket account
 - <https://bitbucket.org/>
- Do Atlassian git tutorial
 - <https://www.atlassian.com/git/tutorials/>
 - Add myself and your TA to your repository by adding ucsd.cse.robotics@gmail.com to your repo with read permission
 - *If we can't access your repository you will not receive a grade*
 - We'll check for a repository with at least two commits (individually graded)
- Review this git branching model
 - <http://nvie.com/posts/a-successful-git-branching-model/>
 - Perform branch and merge operations demonstrating this model in your repository (individually graded)
- Download the source files from the Assignment 1 content directory
 - Look for the readme.txt file which outlines a sequence of commits and merges using the provided files
 - Make sure you perform all steps in your individual repository (individually graded)

CODE MANAGEMENT



- Review the “Use a wiki” section of the BitBucket documentation
 - <https://confluence.atlassian.com/bitbucket/use-a-wiki-221449748.html>
 - Add a table of contents to your wiki home page
 - Create a new page called Assignment 1 linked from your table of contents (individually graded)
 - You’ll be linking to code from the next part on this page
- Setup a team repository for your group and add all members, myself, and your TA
 - Add myself and your TA to your repository by adding ucsd.cse.robotics@gmail.com to your repo with read permission
 - *If we can’t access your repository you will not receive a grade*
 - Add a table of contents to your wiki page and link to a new page with your team description (team graded)
 - Should include: team name and each member name

ARM[®] mbed[™]

- Explore mbed Handbook
 - <https://developer.mbed.org/handbook/Homepage>
- Explore mbed SDK source code
 - https://developer.mbed.org/users/mbed_official/code/mbed-src/
- Locate the low-level C/C++ functions for Timer handling on the LPC 1768
 - On your Assignment 1 wiki page explain: (individually graded)
 - What the relevant source files are and why
 - The C/C++ structure used to abstract the timer hardware interface
 - How the elements of this structure map to physical I/O addresses

LPC1768



ARM[®]mbed[™]

- Setup mbed LPC1768
 - <https://developer.mbed.org/platforms/mbed-LPC1768/>
- Write and run a Hello World program (team graded)
 - Commit the code to your repository under branch assignment1-hello
 - Upload a short video demonstrating the program to your WIKI.
- Write a program that uses the timer to flash the four on-board LEDs in sequence (team graded)
 - The sequence should repeat at 1 Hz (1/sec) interval
 - Commit the code to your team repository under the branch assignment1-led
 - Upload a short video demonstrating the program to your WIKI.