Course Updates & News

FEBRUARY 18, 2014

Progress
We have placed a suggested schedule farther down on this page. At this point, 4693 students have finished Quiz 5, and 3348 students have finished some or all of Lab 5. Remember, if your LaunchPad has not yet arrived, please work on the labs in simulation. If you are behind, there is still plenty of time to get back on track. Remember to ask questions in the forum.

Round 2
Chapters 8-11 are now available. We know many of you have been looking forward to this since completing the Lab 7. Chapter 8 requires the breadboard as we connect external switches and LEDs to the LaunchPad. Chapter 10 includes the stepper motor car you saw in some of the promotion videos. We will add the remaining transcription files for some of the lab videos as soon as they are ready later this week.

What to do if you are stuck?
Lab classes are best performed with a partner. We strongly suggest you use social media and/or the forum to find someone to work with. Some of you have already used the "Search for Teammates" feature in Piazza to find partners. Even if you understand most things, explaining things to someone else and having a second set of eyes on your work is very instructive. Here is our rule about partners: connect with another student and work on a lab together, but when that lab is finished feel free to either continue on to the next lab, or to politely tell your partner "it didn't work out".

Students are running this class
There are only six TAs answering questions on the forums. We believe the forums have been very successful to date, because nice and helpful students are answering questions. In particular, we wish to specifically thank **microwattbott**, **BillW**, **MLDev**, **Charles**, and **Nabila** for their positive contribution to the forum. In our TA meeting last Friday, the TAs suggested we give prizes at the end of the semester. So, each TA will choose a student they think is most helpful (think quality not quantity) on the forum. The professors are thinking about prizes.

Advice about using the forums
Since we have a limited number of TA hours, they are focusing on unresolved questions. So, if you think you asked a question, and know it hasn't been answered, please mark it unresolved. Screen shots are very helpful for us understanding what your problem is.

Windows 8

We have witnessed an interesting behavior with some Windows 8 machines. Here are the symptoms: Keil works perfectly for some time, and then Keil will not start the debugger on the real board. You can compile and download, but when you start to debug, it quickly and automatically dumps you back into the editor. This site (http://users.ece.utexas.edu/~valvano/edX/Window8KeilDebuggerFix.htm (http://users.ece.utexas.edu/%7Evalvano/edX/Window8KeilDebuggerFix.htm)) explains how to put things back right again.

USB debug cable

Remember the USB connector on the LaunchPad is VERY FRAGILE. Please reduce the amount of twisting and turning at the point where the cable connects to the LaunchPad. If it falls off it can often be soldered back on, but the pins are real close together.

Certificate Deadline

You have until Wednesday, February 19th, to sign up for the ID Verified Certificate. This option may help you achieve your personal and professional goals. Remember, you must achieve a passing score of 70% on the course quizzes, simulated labs, and real board labs to qualify for a certificate.

JANUARY 31, 2014

We are so happy people are enjoying this class. Many students have asked for two things: 1) a more linear or book-like resource of the class material; and 2) a list of the video links. Professors Valvano and Yerraballi have created a web site at **http://users.ece.utexas.edu/~valvano/Volume1/E-Book/** (http://users.ece.utexas.edu/~valvano/Volume1/E-Book/) which provides both a linear or book-like resource and a list of video links. The material for Chapters 1 to 7 as you know is ready, and we are working on the next set, Chapters 8 to 11. This website is meant to supplement not replace the content on edX. This site is our sandbox where we first build the information before uploading to edX. If you need closed captions, please use the edX site because the captions on edX have been reviewed and edited by Valvano and Yerraballi. When viewing the videos on YouTube you can activate YouTube closed captioning, but these captions have not been (and will not be) reviewed or edited. All **videos** (http://users.ece.utexas.edu/~valvano/Volume1/E-Book/VideoLinks.htm) are hosted in two places: YouTube and Amazon S3. It is our plan to make the edX pages as accurate as possible and will strive to make corrections to the edX material as we can. Again, the **http://users.ece.utexas.edu/~valvano/Volume1/E-Book/** website contains the material prior to uploading to edX and hence may be more inaccurate. Knowing that however, it is our goal to reach as many people as possible and we hope this site makes the class more accessible for those having technical issues reading and watching the material on edX. All quizzes and labs must be performed on the edX site.

JANUARY 24, 2014

ARM, Texas Instruments, Zyante, and Digilent have been instrumental for the success of this class. ARM and Texas Instruments have communities to assist students learning their products.
1) You can join **Texas Instruments E2E community** at **http://e2e.ti.com/** (http://e2e.ti.com/). This is a good place to ask

Help

TM4C123-specific questions like *"how do I install windows drivers for the LaunchPad?"*, or *"what happens if I try to source 20mA into an LED from a GPIO pin?"* or *"what do I do if the USB socket on the LaunchPad breaks off? How do I solder it back on?"*
2) You can join **ARM University** at **http://www.arm.com/university/** (http://www.arm.com/university). This is a good place to ask ARM-specific questions like *"does the CortexM4 have 5 busses or 6 busses? why?"*, or *"why does the CortexM4 execute instructions out of order?"*, or *"why does the stack-pointer need to be aligned?"* or *"what is the difference between Thumb and Thumb2?"*
3) **Zyante** has agreed to provide a subset of their on-line C programming reference for free to students in this class. Reading Zyante is optional and not a formal part of this class. If you would like to access Zyante learning tools:
a) Go to **http://utedxfall13.zyante.com** (http://utedxfall13.zyante.com)
b) Click **Register** in the upper right (do not click **Subscribe for full access**)
c) Registering is free but subsequent visits to this site you will Login.
4) Students in the edX class may purchase their own **Analog Discovery logic analyzer/scope** at **http://www.digilentinc.com** (http://www.digilentinc.com) for $99 plus shipping. This hardware debugging tool is not required for this class, but we love ours a lot. When purchasing the Analog Discovery identify your school as edX and your class as UT.6.01x. If you have any questions about the Analog Discovery logic analyzer/scope please contact Digilent at **awong@digilentinc.com**.

JANUARY 21, 2014

Suggested schedule By Friday 1/31: Finish Chapters C1 and C2 (install Keil, TExaS)
By Friday 2/7: Finish Chapters C3 and C4 (electronics and digital logic)
By Friday 2/14: Finish Chapter C5 (C programming)
By Friday 2/21: Finish Chapter C6 (I/O ports)
By Friday 2/28: Finish Chapter C7 (Design)
By Friday 3/7: Finish Chapter C8 (Interfacing switches and LEDs)
By Friday 3/14: Finish Chapter C9 (How to debug)
By Friday 3/21: Finish Chapter C10 (Finite state machine)
By Friday 3/28: Finish Chapter C11 (Serial port interface)
By Friday 4/4: Finish Chapter C12 (Interrupts)
By Friday 4/11: Finish Chapter C13 (DAC and sound)
By Friday 4/18: Finish Chapter C14 (ADC and measurements)
By Friday 5/2: Finish Chapter C15 (Hand-held game)
Course closes Wednesday 5/14

JANUARY 28, 2014

Tasks to complete the first week of the course:
1) Order the kit. If you do not have yet received the kit, you can do the labs in simulation now, and then go back and complete the labs on the board when your kit arrives. Instructions for ordering the kit can be found at **Course Web Site** (http://edx-org-utaustinx.s3.amazonaws.com/UT601x/worldwide.html);
2) Watch the videos and read the content of the first two chapters;
3) Take the quiz at the end of chapter 1 and chapter 2;
4) Perform the first lab (Lab 2), which involves installing software and running an existing program both in simulation and on the real board.
5) Download the software (step 1 of the first lab) at **instructions to download and install required software** (http://edx-org-utaustinx.s3.amazonaws.com/UT601x/download.html).
