

EEL3701

Practical 1

Practical 1:

- **REMOTE**
- Tues, 30 June
- 2:00pm
- Honorlock
- w/ Zoom



Read the following on our website's Exams page

- **3701 Honorlock Rules & Policies**
- **Instructions extracted from practical**

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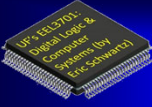
- 115 minutes (plus 5 minutes for setup).
- Relevant topics include:
 - > Labs 0-3 (including **all** switch & LED circuits); HW 0-8; DAD usage.
- Something relatively simple.
- You will design, debug, and demo for a PI, Dr. Schwartz.
- **NOT** allowed:

NO hex to 7-segment decoder allowed

 - > **Labs, homework, notes, etc.**
 - > Other student's info.
 - > Another computer, calculator, ...
 - > Cell phone, until you are done and ready to take the required pictures
 - > Documentation of any kind (HW, Labs, Notes, Pinouts).
 - > Pre-built circuits; anything not specifically mentioned as allowed.
 - > Access to anything else not specified.

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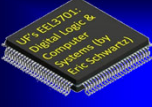
Credit **ONLY** Given for What's Demoed/Simulated

- In order to get partial credit:
 - > If you cannot demo everything, it is up to you to figure out a way to demo at least part of the requirements.
 - > **Points are only awarded for items that are demoed/simulated**, not for designs that are not demoed/simulated.
 - > No points are awarded for designs without demo or simulation.

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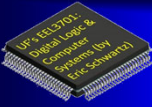
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Provided Before Practical

- Prior to the practical, a PI (probably **NOT** your lab PI), will send you a Zoom link to use for the practical.

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Provided During Practical

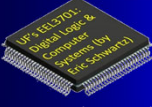
- The following information will be provided to you **in** the practical:
 - > On **Family, Device & Board Settings** (or **Assignments | Device**)
 - Select “**Board**”
 - Change the **Family** to “**MAX 10**”
 - Change **Development Kit** to “**MAX 10 DE10 – Lite**”
 - **De-select** the checkbox labeled “**Create top-level design file**”.
 - > When needed, chip descriptions, part numbers, and pin numbers.

On **Family, Device & Board Settings** (or **Assignments | Device**)

- Select “**Board**”
- Change the **Family** to “**MAX 10**”
- Change **Development Kit** to “**MAX 10 DE10 – Lite**”
- **De-select** the checkbox labeled “**Create top-level design file**”.

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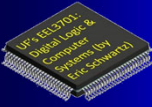


EEL3701 Bring to the Practical

- Bring the following to the practical and **within reach**:
 - > **Your PC, with web cam & speakers**
 - > **Your entire 3701 kit (all parts)**
 - Your 74'xxx devices, switches, LEDs, resistors
 - *DE10-Lite*, USB cables, and if necessary, a USB expander
 - > **Your DAD**
 - > Two blank pieces of scratch paper, with nothing written or printed on either side
- Your breadboard, when the exam begins:
 - > Can have the following on your breadboard:
 - Vcc and GND connected to the PLD PCB and the power rails
 - Note: **During** the practical, don't forget to **connect your DAD's ground, DE10-Lite's ground, and breadboard ground**, thus making a necessary common ground.
 - > Can **NOT** have the following on your breadboard :
 - Any other components or wires
 - Switch circuits or components
 - LED circuits or components
 - 74'xxx ICs

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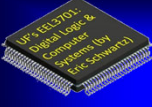


EEL3701 Software you can use at the Practical

- The following programs/applications can be used:
 - > Chrome (w/ Canvas and Honorlock, but **nothing** else)
 - > Quartus
 - > Waveforms (for use with the DAD)
 - > A pdf viewer
 - I recommend *Adobe Acrobat Reader*.
- Use of Use of MS-Word (or similar), slack, email, or any other software that is not specifically allowed, is **NOT** allowed.

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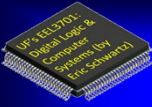
Losing Internet Connection

- If you ever have WiFi or other internet connection problems just before or when your practical begins, use your **phone** to connect to Zoom.
 - > Zoom chat with the relevant PI.
 - Describe the issue and continue to try to get back in!
 - The PI will contact Dr. Schwartz.
 - > **As an emergency backup (if your internet goes out), you should learn how to setup your phone as a WiFi hotspot.**

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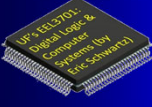
Honorlock Problems

- If you are having problems with Honorlock, contact Honorlock and keep trying!
- Also send a Zoom chat message to the PI.
 - > The PI will contact Dr. Schwartz.

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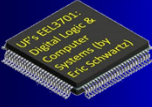


EEL3701 Honorlock Room Scan, if Requested

- The room scan should be thorough and take about one minute. See [Honorlock: Proper Room Scan](#) (on the front page of our website).
 - > Be sure to show your desk, computer monitor, walls, floor near your computer, and ceiling.
- In addition to the complete room scan, show each of the following:
 - > Both sides of scratch paper
 - > Your breadboard (containing nothing not allowed)

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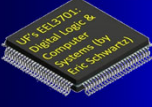


EEL3701 Honorlock ID Scan Extras

- After your Honorlock ID scan, show the following to your camera.
 - > Both sides of your scratch paper.
 - > Your breadboard (containing nothing not allowed).
- You will scan and submit images of this paper with **Adobe Scan** or equivalent as specified later in this document.
 - > Please note that many other commonly used scanning programs have failed during assignments like this.

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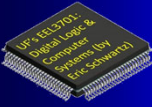


EEL3701 Zoom App Better than Zoom in Chrome

- Canvas/Honorlock seems to prefer the Zoom app rather than opening Zoom in Chrome.
 - > I strongly suggest that you install and utilize the Zoom application (at <https://zoom.us/download>).

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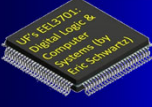


EEL3701 Zoom during Practical

- Prior to opening Honorlock, connect to our Zoom link for Practical 1; a PI will send you **your** Zoom link.
 - > Log in to UF's Zoom (with 2-step authentication) <https://ufl.zoom.us/>. Use your **FULL** name in Zoom.
 - Be sure your speaker is **on** & video **off**. (No headphones or ear buds allowed).
 - > In Zoom, be sure to turn off your video before opening Honorlock.
 - > You will start in a single Zoom room, but when you are ready to demo, you will be assigned to private breakout room (with a PI).
- If you have a **question**:
 - > Use Zoom chat to talk to your PI directly.
 - When the PI is in a breakout room, checking off another student, the chat is not available to the PI.
 - Be patient; each PI will have several students.
 - > Do **not** ask for any feedback on a design.
 - > The PI will **not** tell you if your answer is correct or if you have done everything necessary.

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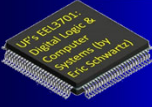


EEL3701 More Info

- **DURING** the practical
 - > Use of MS-Word (or similar), slack, email, or any other software that is not specifically allowed, is **NOT** allowed.
 - > No physical phone connection to your computer is allowed.
 - > No printer/scanner is allowed.
- Be sure to **view** the file on your phone **before** submission to assure that it is **complete and clear**.
- Bring **two** completely blank pieces of paper and pens/pencils.

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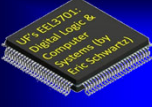


EEL3701 Paper Submission at End of Practical

- Only after you are completed the rest of the exam (or when 5 minutes are remaining), do the following.
 - > **Archive** your work in **Quartus**.
 - Upload the Quartus archive to your Canvas/Honorlock quiz.
 - > Use your cell phone and **Adobe Scan** (or similar) to create a **SINGLE PDF** file.
 - After picking up your phone, **no more writing/work** is allowed!
 - Take a clear picture of your breadboard, w/ DE10, and DAD **from the top**, so that all wiring is visible.
 - Take a clear picture of each utilized side of your scratch paper.
 - The scratch paper must include the **switch/LED legends**.
 - All of this should be in a **SINGLE PDF** file. View the file on your phone before submission to assure that it is complete.
 - Upload this **SINGLE** file to the **Pr1 – PHONE** Canvas assignment.

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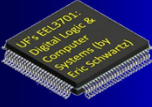
Integrity

- After touching your phone or archiving Quartus, **no more writing/work** is allowed!
- Once you start scanning your paper/breadboard or start archiving your Quartus project, you are **no longer allowed** to make any changes (including the following):
 - > Your circuit design on your breadboard.
 - > Your Quartus design, simulation, or PLD program.
 - > Your scratch paper.
- No more work is allowed, other than the required submission of the two files.

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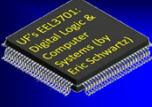
Honorlock During Practical

- In Honorlock, you must share your computer screen, video, and audio with the proctoring PI at all times. Do **NOT** close Honorlock until after your demo. (It may close itself when time has expired.)
 - > See page *Honorlock Room Scan*, **if Requested** if Honorlock request a room scan.
- If you are finished before the time is up (including uploading the archive and your scans), let the PI know. When the PI has time, they will let you demo.
 - > Tell the PI you are ready by sending **READY** in the Zoom chat.
 - > The PI will instruct you to close Honorlock and you will perform the required demo.
- If you are not finished until the deadline, the assignment will automatically close when time is up. It is therefore **critical** that you upload your files before time is up!
 - > If you do not, then you will **earn a zero** on the Practical.
- When demoing, you will also share your screen and your camera.

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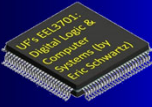
Time Remaining

- Keep your speakers on so that you can hear any announcement that the PI makes.
- The PI will **VERBALLY** tell you when 5 minutes are remaining (and also a few other times, like 37 minutes and 10 minutes remaining).
- **I strongly suggest that you set a cell phone alarm at 5 minutes prior to the end of the practical to remind you to start the process of archiving, scanning, and submitting!**

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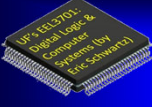
Demo for Practical

- You will have only **ONE chance** to demo your work
 - > If you think you are ready, read the question **AGAIN** to be sure that you completed **ALL** parts of the Practical.
 - > Be prepared to run your design, as instructed, with your DAD connected as specified.
 - > Before closing Honorlock, upload the required files to the Practical Quiz.
 - > **After** you have uploaded your files, notify your PI by sending the message **READY** in the Zoom chat. Do **NOT** leave the Zoom meeting.

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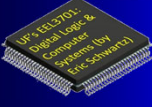
Demo for Practical

- If you have not demonstrated your solution at least **five minutes before the practical is due**, at that time, you must **stop working** and start the process to upload your files to the Practical Quiz.
 - > Failure to upload your files before the end of the practical will result in a **grade of zero**.
- After completing your uploads, continue in Honorlock and do **not** leave the Zoom meeting.
 - > You **must NOT** leave the Zoom meeting until you demo something (or to tell your PI that you are giving up); if you do give up without a demo, you will earn a zero.
 - > Once you leave Zoom, you will not be able to reenter the Zoom Practical.

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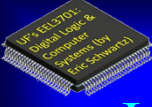
Immediately Prior to the Practical

- Below has been shown to prevent problems that have happened to a few students in the past. It wouldn't hurt and could save some aggravation.
 - > Verify that you have your UF ID, passport, or driver's license (for the Honorlock scan).
 - > Clear your cache in Chrome.
 - Reinstall the Chrome Honorlock Extension.
 - Close then reopen Chrome.
 - > Reboot your computer.
- Be sure that there is enough light for your face to be clear during the exam (for Honorlock). If not, find a lamp or a different area.

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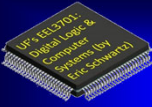
Immediately Prior to the Practical

- Close **all programs/applications** other than Chrome (and Zoom).
- Close **all Chrome tabs** other than Canvas.
- Turn off any potential pop-ups that could occur during this assignment.
- You may open Quartus and Waveforms, but do **not** start anything on either application.

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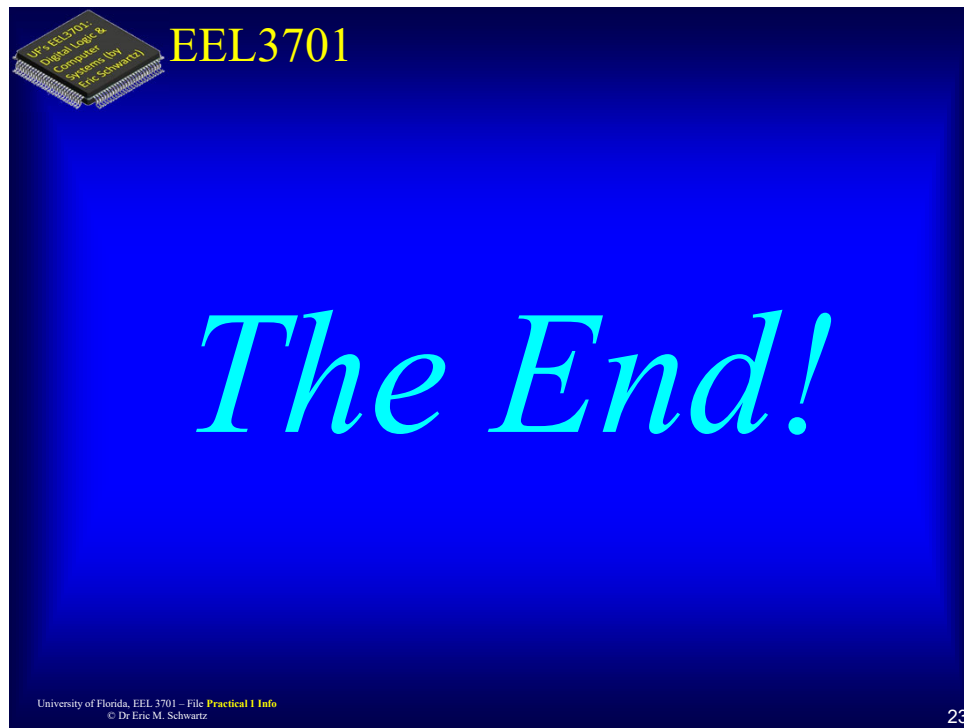
Finishing your Practical

- After you have demonstrated your Practical solution, close Zoom.
 >You are done!

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