Lab: 12PM – 1:50PM

## **BEFORE CLASS:**

- Get Zoom Set Up
- Get YouTube Live Stream Set Up (Unlisted Video)

## **DURING LECTURE:**

- Book-keeping:
  - o Laboratory materials are ready to be <u>picked up at the Foothill Sunnyvale Center</u> for our

ENGR 11, Unit 1 Project: Electrify the Linear-Systems Problem

Today we continue to hash out logistics for this pick up. Please see pages 2-4 of this Class 8 Plan for more information about what we discussed with relation to this item.

- Class 9 Quiz on Lesson 4: Control Flow
- Lab 4 Updates, Questions, and Answers
- After discussing Class 9 Material, students can choose the following:
  - Option 1: Continue your work on Lab 4, B-level task (Due on Wednesday 2/3/2021 at 12:50pm)
  - Option 2: Continue work on A-Level tasks available
  - Option 3: Begin your work on Unit 1 Project: Start watching the content from:
    - Unit 1 Project, Part 1 Playlist: Introduction to Electronics Learning Lab Kit
    - Unit 1 Project, Part 2 Playlist: Basic Concepts in Circuit Analysis
    - Unit 1 Project, Part 3 Playlist: Linear Algebraic Nodal Analysis Example 2
    - Unit 1 Project, Part 4 Playlist (A-Level): LANA Example 2, A-Level Analysis

## **DURING LAB:**

- Work on <u>Laboratory 4</u> (<u>Due on Wednesday 2/3/2021 at 12:50pm</u>)
- Begin Unit 1 Project, Electrify the Linear-Systems Problem (Due on Wednesday 2/17/2021 at 12:50pm)
- Lab 5 Prompt to be drafted in the coming weeks: please stay tuned

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## **AFTER CLASS:**

- Engage with material from <u>Lesson 4: Control Flow</u>
- Prepare for Class 10 Quiz on Wed 2/3/2021 at 10AM on Unit 1, Part 1: Intro to Electronics Lab Kit
- Do your very best to get caught up on the material from this class. Starting in Week 6, your progress is going to matter to other team members in this class.

## **DISCUSSION POINT:**

- Note 1: Daily quizzes are flexible progress checks
  - o you can upload multiple drafts of your previous quizzes (so if you had incomplete work and you want to update your progress tables, you should be able to re-upload newer drafts on Canvas)
  - o Can someone help me understand how this works exactly?
- Note 2: I need help building better grading and accountability systems
  - o Discussion of challenges I face this quarter versus my desired level of service to students.
- Electronic Lab Kit Logistics Problem 1: State-side pick and distribution problem
  - Some students in Bay Area CA have class on Tuesday 2/2/2021 between 10am 2pm and cannot go pick up their kits at Sunnyvale during that time.
  - O Possible sanctioned solution: We have a small group of students living in Bay Area who are available to pick these up act as the leaders to get the kits. Then, at a later time, the other students find a way to make it easy on the person with the kits and pick these up for themselves. Also, bring a piece of chocolate or coffee or something sweet to say thank you.
  - o Another possible solution is to have a family member or trusted friend pick up these materials on our behalf on Tuesday 2/3/2021 between 10am − 2pm. -Cindy T.
  - Let's outperform MIT students and show ourselves that we can solve this logistics problem together.
- Electronic Lab Kit Logistics Problem 2: Virtual learning outside of Bay Area problem
  - We have at least 12 students who are living outside of the greater Bay Area. These students will not have access to the physical lab kits. Below are some possible solutions:

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- Partial Solution 1: For students who live in CA, we have the capacity to send you your kits in the mail. There are logistics for this that we haven't worked through yet. Please text me at (650) 383-7194 ASAP if want to learn more about his option
- Partial Solution 2: Watch all the videos in the appropriate playlists so you can see what
  the measurement look like. Ideally, do this BEFORE you ever work with a teammate. In
  other words, do your best to be respectful of your classmate's time.
- Partial Solution 3: Let's team up on a 1-to-1 basis, people who currently live in the Bay Area and have access to these kits with people that don't have access to the kits. Then, each pair can do the lab exercises together. MORE ON THIS LATER
- Under-developed Solution 4: Use a circuit prototyping software that allows for a digital simulation of the physical lab measurements (A + + Level). Some learners in our class suggested possible ideas in the Zoom chat for today and I captured these on page 4 of this Class 8 Plan document.

## **QUESTIONS FOR TODAY'S CLASS:**

## • Group 1: Local Pick Up

The following team members are in the Bay Area and able to pick up kits on Tuesday 2/3/2021.

- 1. Erik B.
- 2. Tommy B.
- 3. Shenyue H.
- 4. Conner J.W.
- 5. Jose M.
- 6. Brenna N.
- 7. Bryan N.
- 8. Arash "Sam" S.
- 9. Mathew S.
- 10. Sri S.
- 11. Andy T.
- 12. Sebastian U.

## • Group 2: In Bay Area but NOT able pick up kits on Tuesday 2/3/2021

The following team members are in the Bay Area and NOT able to pick up kits on Tuesday 2/3/2021.

- 1.13. Alana L. (Southern CA)
- 2.14. Zaw Lin N.
- 3.15. Eugenia P.
- 4.16. Szu Ting "Cindy" T.

# • Group 3: Out of Area (and no access to a private plane)

The following team members are not in the Bay Area and thus will not have access to the physical lab equipment this quarter. Our goal as a class is to get these folks connected (in pairs or groups of three) with team members from Groups 1 and 2.

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- 1.17. Hyunji A. (South Korea)
- 2.18. Yufeng C. (China)
- 3.19. Jiale H. (China)
- 4.20. Venezia H. (Indonesia)
- 5.21. Chon Wa "Kuma" H. (Macau)
- 6.22. Diane L. (China)
- 7.23. Yakir N. (Southern CA)
- 8.24. Param S. (Central California)
- 9.25. Celine S. (Texas)
- 10.26. Noe V. (Southern CA)
- 11.27. Sohee Y. (South Korea)

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# • Group 4: Students not in ENGR 11, Class 8 Zoom meeting on Wednesday 1/27/2021

According to my records, the following team members were not in our zoom meeting on Wednesday 1/27/2021 when I made the lists for groups 1-3 above. Thus, I have no information about which groups these students fit into:

- 1.28. Chad G.
- 2.29. Isabel W.
- Would it be possible to mail the lab kits? This might help solve the problem for people who live in the United State. One idea here is to connect with the Foothill Bookstore. -Alana L.

## Possible simulators

## Sabatian's ideas:

- <a href="https://www.analog.com/en/design-center/design-tools-and-calculators/ltspice-simulator.html">https://www.analog.com/en/design-center/design-tools-and-calculators/ltspice-simulator.html</a>#
- <a href="https://www.multisim.com/">https://www.multisim.com/</a>
- http://lushprojects.com/

## Open question for our team:

• What other simulators might work as viable alternatives to doing a physical lab exercise using the lab materials?

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