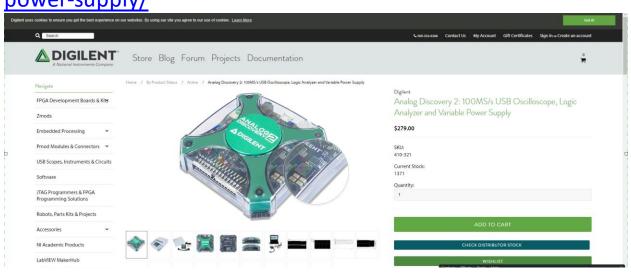
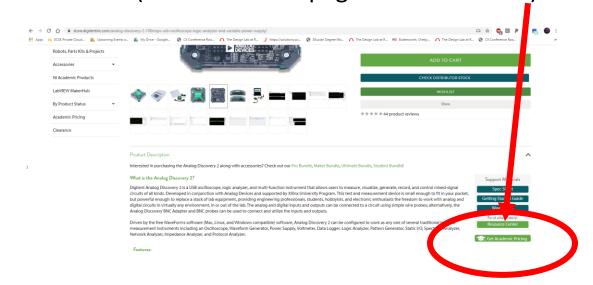
## To order the Analog Discovery Board (and companion kit for Omega Labs)

1. Go to <a href="https://store.digilentinc.com/analog-discovery-2-100msps-usb-oscilloscope-logic-analyzer-and-variable-power-supply/">https://store.digilentinc.com/analog-discovery-2-100msps-usb-oscilloscope-logic-analyzer-and-variable-power-supply/</a>



2. Before purchasing SIGN UP FOR ACADEMIC PRICING!!!! (scroll down on page and find here...)



3. If you learn best by challenge and exploration, consider purchasing the Analog Discovery Tool kit (it comes in a bundle with the Analog Discovery Board or separately). This is needed for the Omega Labs....will explain difference between Alpha and Omega Labs in video....

Link to Analog Discovery Bundle:

https://store.digilentinc.com/analog-discovery-2-student-bundle/

Link to Analog Discovery Companion Tool kit only: <a href="https://store.digilentinc.com/analog-parts-kit-by-analog-devices-companion-parts-kit-for-the-analog-discovery/">https://store.digilentinc.com/analog-parts-kit-by-analog-devices-companion-parts-kit-for-the-analog-discovery/</a>

Download LTSpice
 LTSpice is our simulation package required by all students to simulate circuits.

https://www.analog.com/en/design-center/design-tools-and-calculators.html

5. Consider a partner for your labs and what type of lab you'll do. You'll be able to work in teams of 2 or 3. You'll all need to do the same type of lab (Alpha or Omega) at the same time during the semester. I'll explain differences in the video.

https://ecse.rpi.edu/~ssawyer/CircuitsSpring2020\_all/Labs/TheOmegaLabFinal.docx

## **FAQs:**

Question: If I have the Analog Discovery 1, can I still use it for this class?



**Answer: YES!** 

Question: I completed the survey. Is my address given to receive some other kit?

Answer: Yes! Circuits has a tool kit specifically for the Alpha Labs with specific parts. This tool kit is also useful of Omega Labs. This summer semester, the tool kit is free of charge paid for by the ECSE department.

**Question: Do I REALLY need this Analog Discovery Board?** 

Answer: Yes! As an ECSE student you must know how to build circuits. In addition, future courses will use the Analog Discovery Board. If you have an equivalent board as personal

instrumentation like the ADALM 2000 (M2K) or ADALM 1000 (M1K) by Digilent. Contact me directly.

Question: What exactly are the Omega Labs and how is it different from Alpha Labs?

Alpha Labs are bottom up, step by step procedural labs like you normally see in classes.

Omega Labs are top-down design labs where you come up with your own Circuit design based on our class theme....I'll explain both in the video. The link to document explaining Omega Labs is here:

https://ecse.rpi.edu/~ssawyer/CircuitsSpring2020\_all/Labs/TheOmegaLabFinal.docx

Question: Can I switch from Alpha Labs to Omega Labs or vice versa during the semester (just to try them out)?

Answer: Yes, but at specific times.

Question: How are we submitting our lab work?

Answer: Documents will be submitted electronically through Gradescope.

Omega Lab Demonstrations will be done via video (created by and submitted in your WebEx Teams space) and your simulation file (LTSpice) will also be posted in the space (.asc file).

**Question: Can I used PSpice or MultiSim instead of LTSpice?** 

Answer: If you are more familiar with another comparable simulation package you can use it. However, all labs are written for LTSpice. Also, be aware that the student version of PSpice has a limit on parts. If you are an Omega Lab person, you'll likely need to design circuits beyond this limit.