Extra Credit Assignment (Option #6)

ECE 0257 – Spring 2019

Name

Avery Peiffer

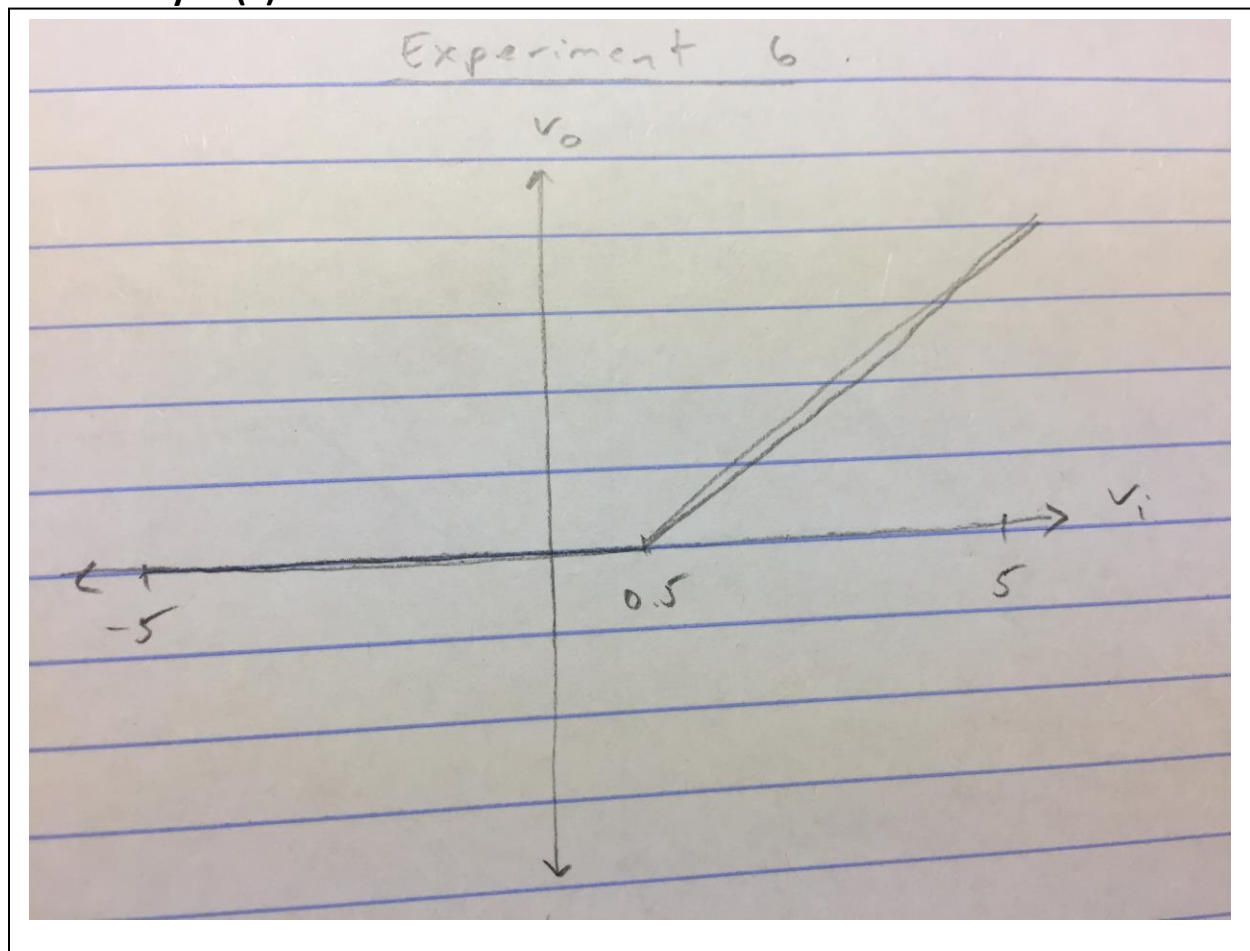**Hand Analysis**
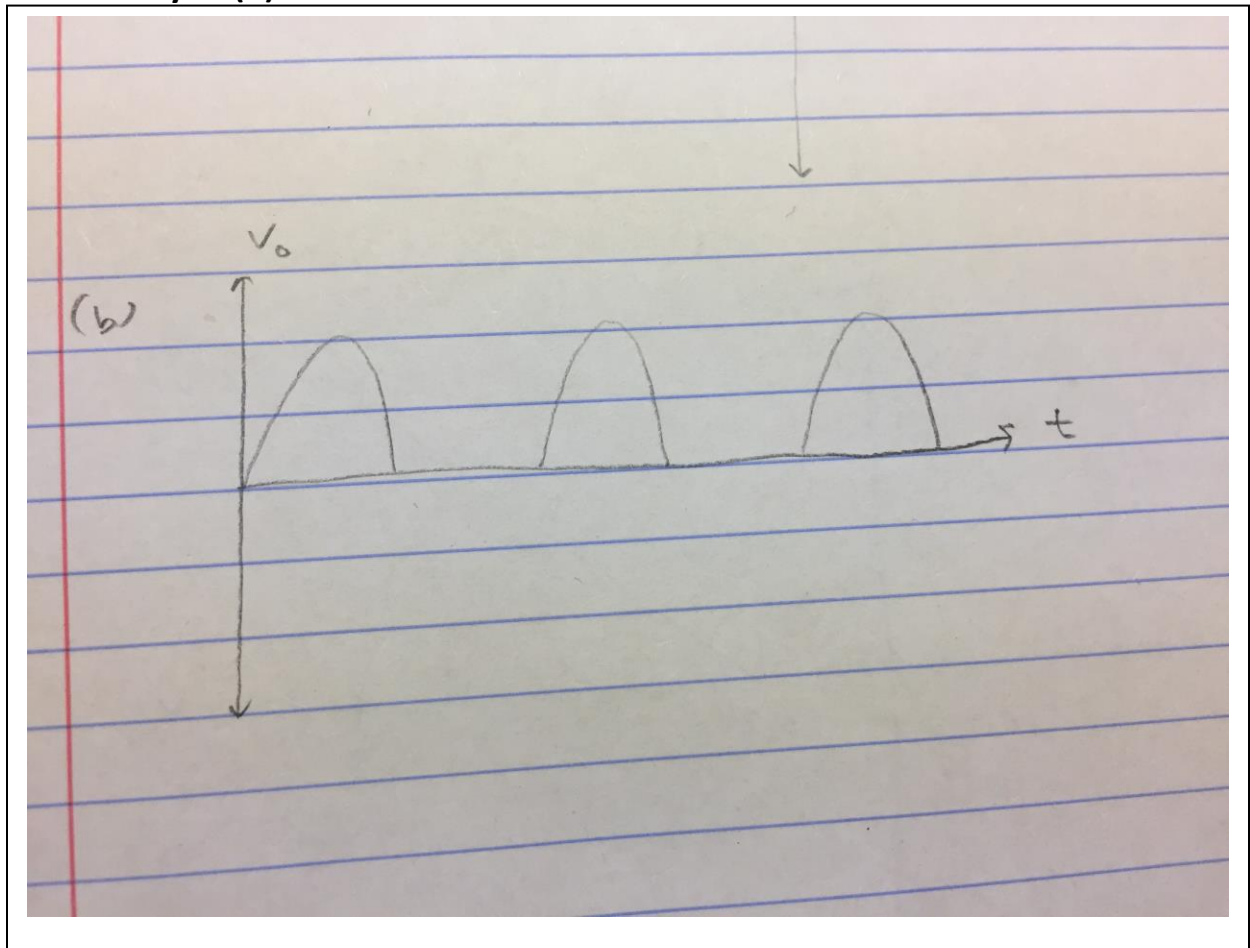
(a-b)

Simulation

(a-b)

Prototype

(a)-(d)

Check-list Before Submission

☐ Write within boxes, no boxes are moved

☐ Write your full names in designated area

☐ Save this file as a PDF before uploading, keep the number of pages (**12**) unchanged

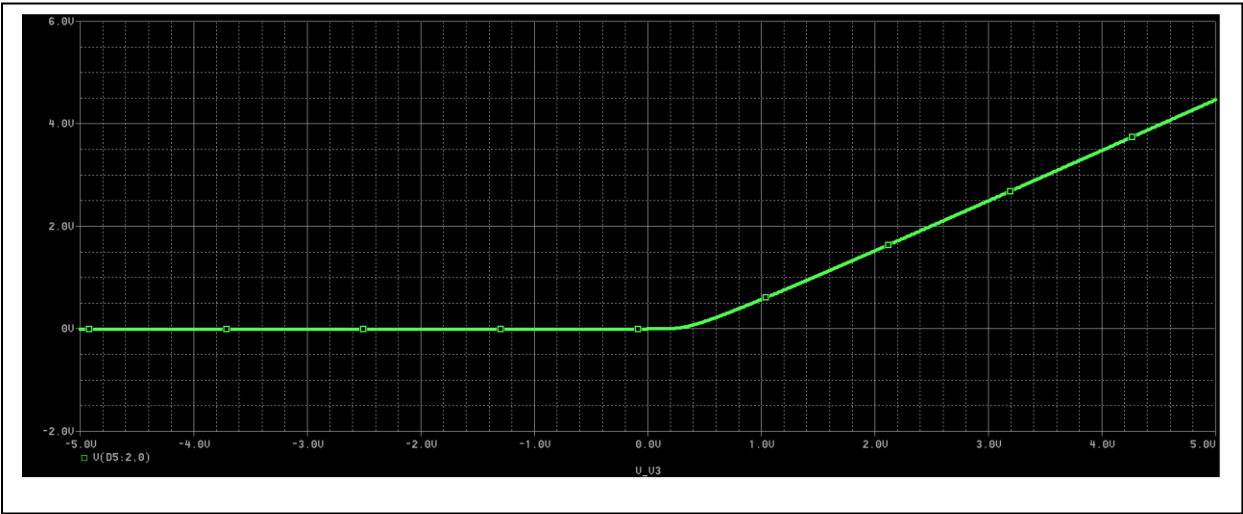☐ Notify "TO BE CONTINUED" accordingly if you used the extra pages (page 10-12)
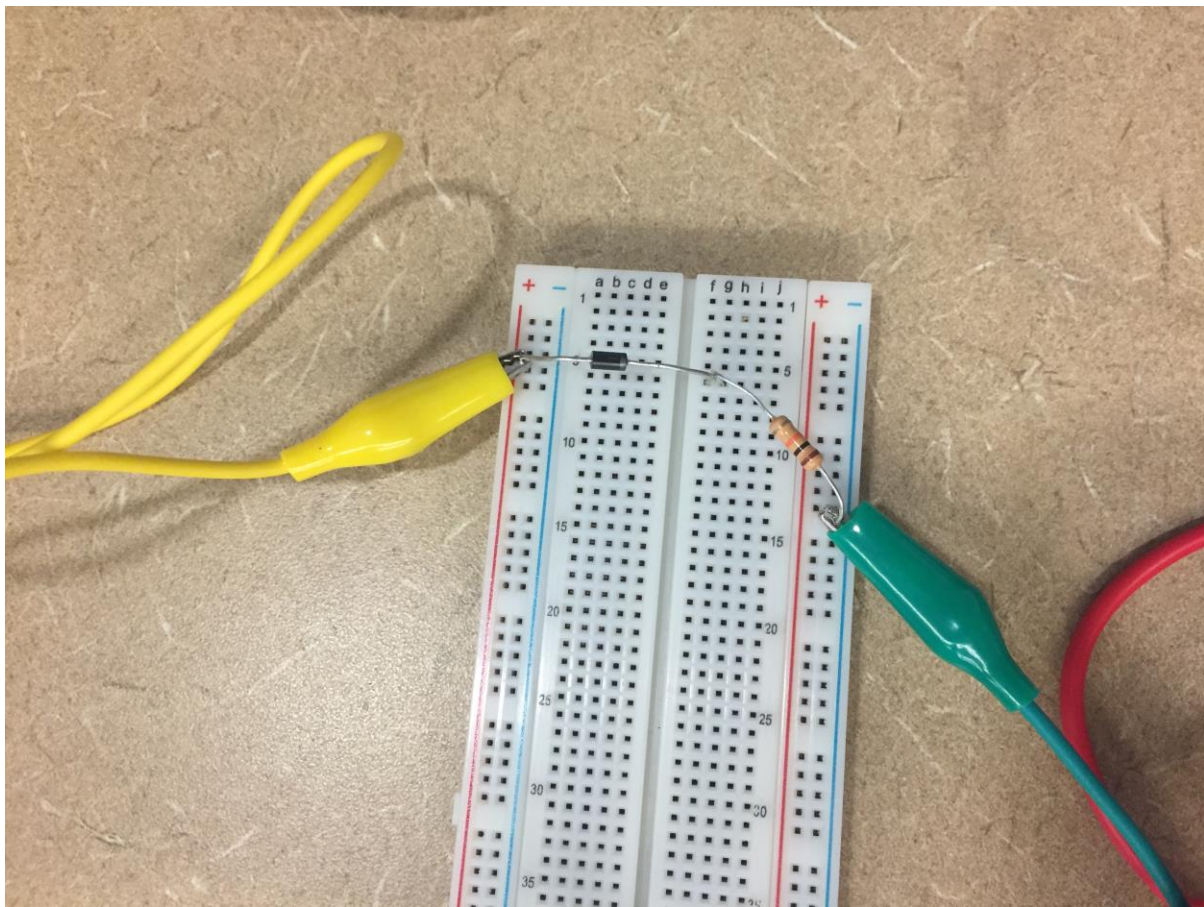
Hand Analysis (a)

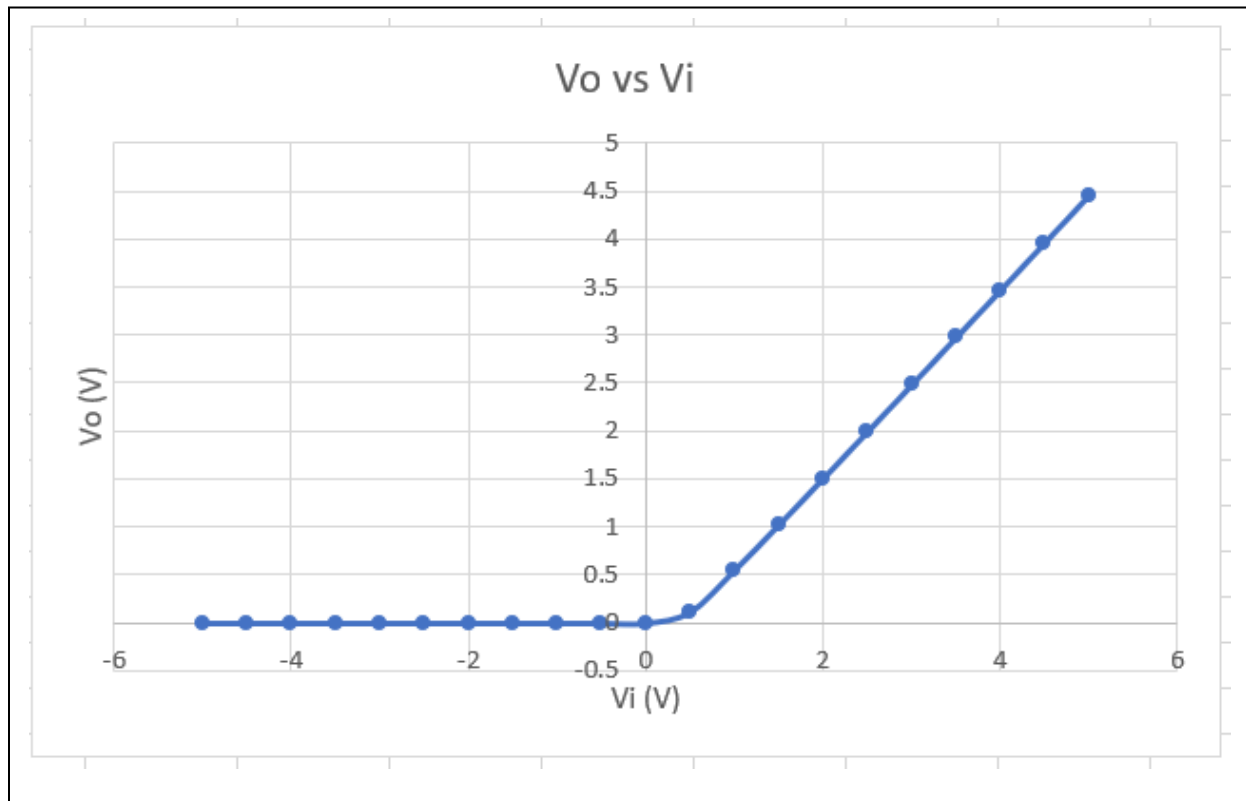**Hand Analysis (b)**

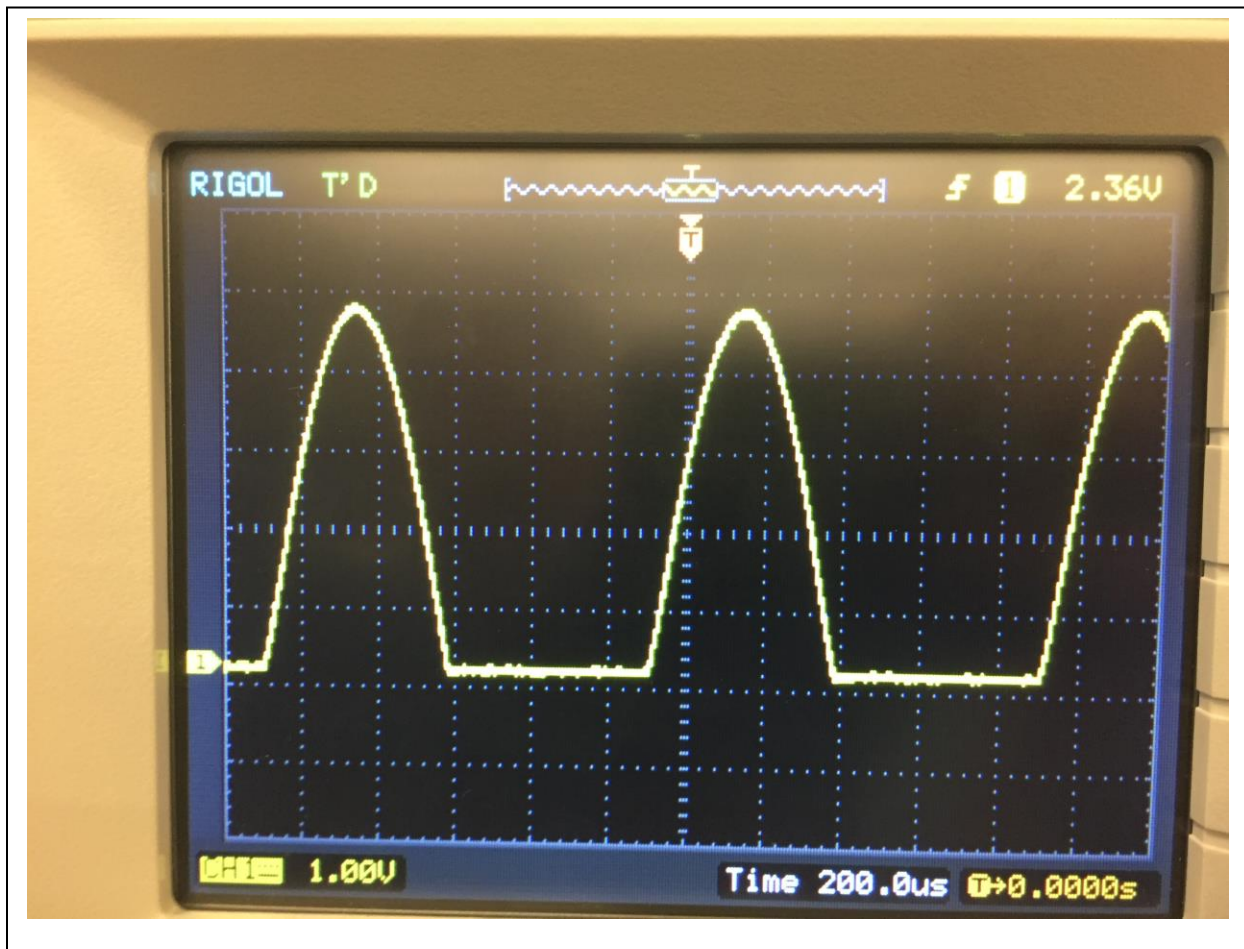## Simulation (a)

Simulation (b)

Prototype (a)

Prototype (b)

Vo vs Vi

Prototype (c)

Prototype (d)

The results are consistent across hand calculations, simulation, and measurements. There is an interesting "bounce" as the signal makes a transition from a sinusoid to a flat line in Simulation b. This is likely due to PSpice's highly complex model of the diode accounting for factors that are not taken into consideration with the hand calculations or measurements.

EXTRA PAGES

[Leave the page unchanged if you are not going to use. Otherwise, specify the problem number you are working on here. Don't forget to notify "TO BE CONTINUED" in the original problem box]

EXTRA PAGES

[Leave the page unchanged if you are not going to use. Otherwise, specify the problem number you are working on here. Don't forget to notify "TO BE CONTINUED" in the original problem box]

EXTRA PAGES

[Leave the page unchanged if you are not going to use. Otherwise, specify the problem number you are working on here. Don't forget to notify "TO BE CONTINUED" in the original problem box]