**Laboratory 04**: DC Measurements using M1K Board and ALICE Voltmeter

(Edit this document as needed)

Partner 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Partner 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Brief description of experiment:

***Part I***

Circuit measurements for LED circuit with one resistor

|  |  |  |
| --- | --- | --- |
| Resistor | Voltage  (measured) | Current  (calculated) |
| 470 Ω |  |  |
| 4.7kΩ (4700 Ω) |  |  |
| 1MΩ (106 Ω) |  |  |

What happens to the current as the value of the resistor increases?

How does the LED brightness behave as current changes?

***Part 2***

Circuit measurements for LED circuit with two resistors:

|  |  |
| --- | --- |
| Resistor | Voltage  (measured) |
| R1 |  |
| R2 |  |

When you add the resistor in parallel with the LED, why do you think the measured voltages for the two resistors are different?

Due: January. 31st, 2022 at 11:59 pm eastern on Gradescope

One student submits on Gradescope and adds their partner using “add group members” option on Gradescope.