

Class 4 Intro to M1K board

Experiment 4 – DC Measurements using M1K Board and ALICE Voltmeter
January 24th, 2022

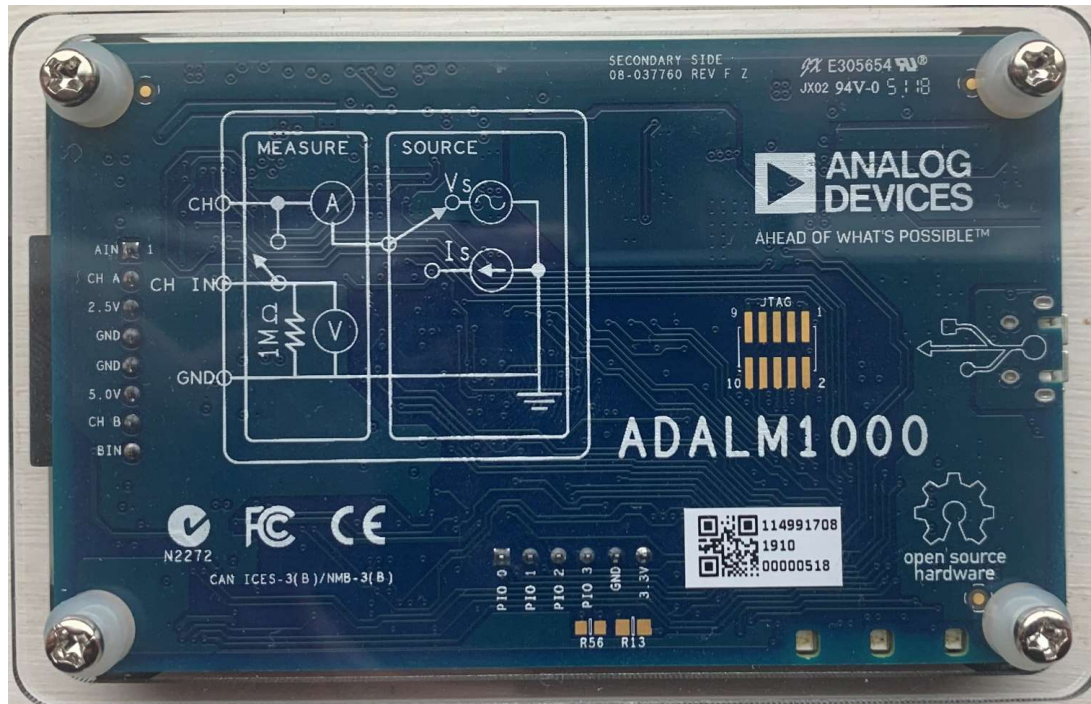
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Intro to ECSE

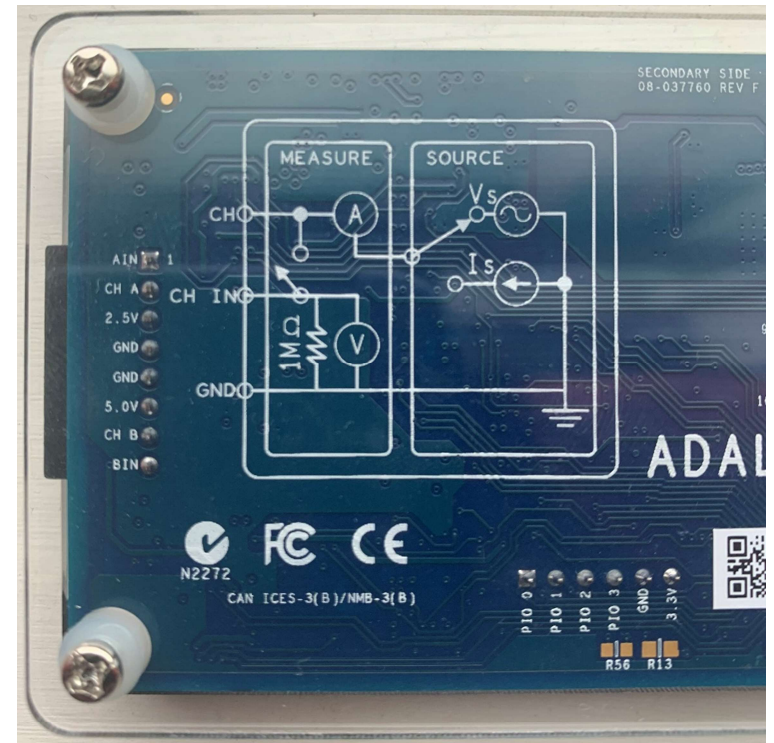
M1K is a SMU

- A Source Measure Unit (SMU) is an instrument that combines a sourcing function and a measurement function on the same pin or connector.
- It can source voltage or current and simultaneously measure voltage and/or current.
- It integrates the capabilities of a power supply or function generator, a digital multimeter (DMM) or oscilloscope, a current source, and an electronic load into a single, tightly synchronized instrument.
- Here is a link to the Wikipedia definition
https://en.wikipedia.org/wiki/Source_measure_unit

What can the M1K do?



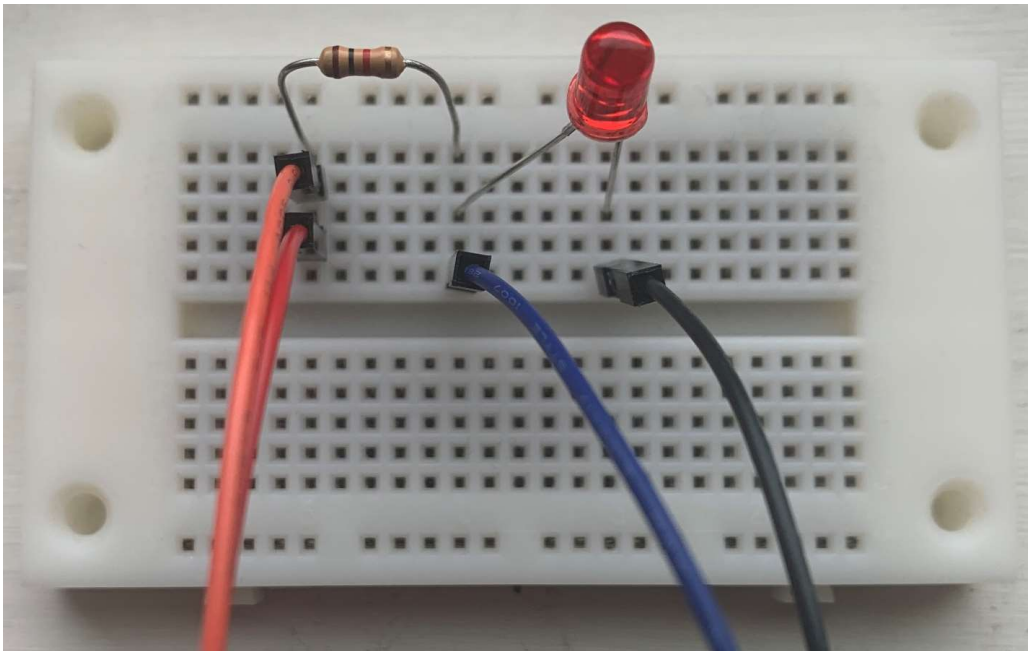
More about M1K Pinouts



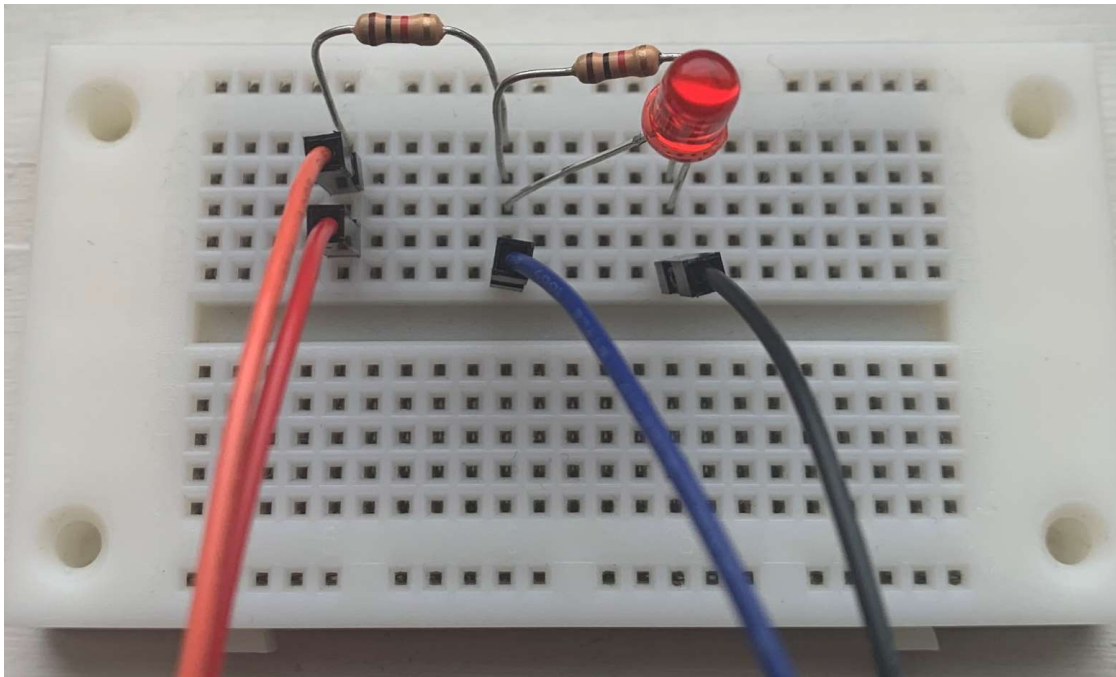
Experiment 4 needs?

- Alice Voltmeter
- +5 V supply
- GND connection
- Parts from kit (wires, resistors, LED)

Example of circuit built on protoboard



Another example



Experiment 4: DC Measurements using M1K Board and ALICE Voltmeter

- Go to the class website
- Look under class 4
- Find experiment 4
- Do the experiment
 - As a group of 2 students
 - Encouraged to discuss with others in the class on WebEx Teams
- Report experiment results using template (attached class 4)
- When complete – upload to Gradescope
 - Due Monday, January 31st at 11:59pm