electronics

A CircuitPython helper class for converting electronics unit objects. It currently consists of one helper for calculating an Ohm's Law result from a two parameter inputs.

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Implementation Notes

Hardware:

Software and Dependencies:

- Adafruit CircuitPython firmware for the supported boards: https://github.com/adafruit/circuitpython/releases

helper_class electronics.ohms_law(*ohms=None, milliamperes=None, volts=None*)

Helper representing Ohm's Law formula calculation. When only two numeric values are supplied (or two numeric values and a third =None value), the two numeric values are used to calculate and return the missing (or =None) value.

Parameters:

- **ohms** – The Ohm's Law resistance value in ohms. Can be any numeric value. Default value is None.
- **milliamperes** – The Ohm's Law current flow value in milliamperes. Can be any numeric value. Default value is None.
- **volts** – The Ohm's Law voltage value in volts. Can be any numeric value. Default value is None.

Example:

```
>>> from cedargrove_unit_converter.electronics import ohms_law
>>> ohms_law(ohms=1000, volts=3.3)
3.3  # current in milliamperes
>>> ohms_law(volts=5, milliamperes=100)
50.0  # resistance in ohms
>>> ohms_law(milliamperes=5, ohms=2000)
10.0  # voltage in volts
```