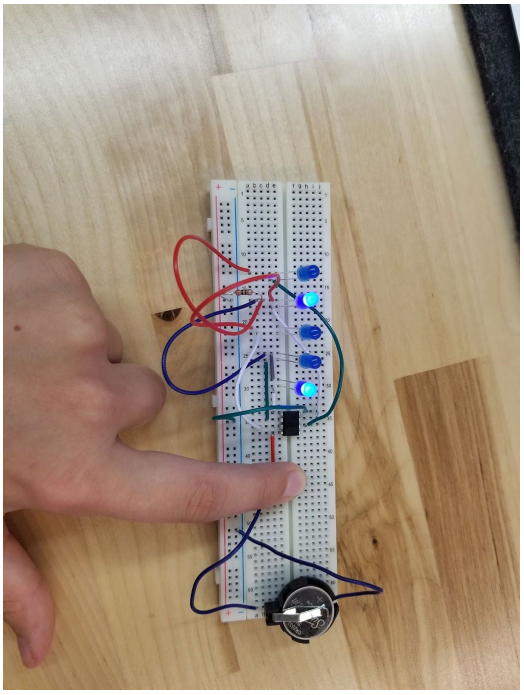
ETUDE 2
Véronique Pesant

PART ONE:
I was a little bit confused at first and had to change my wires around a few times, but in the end my circuit work so I was pretty glad.



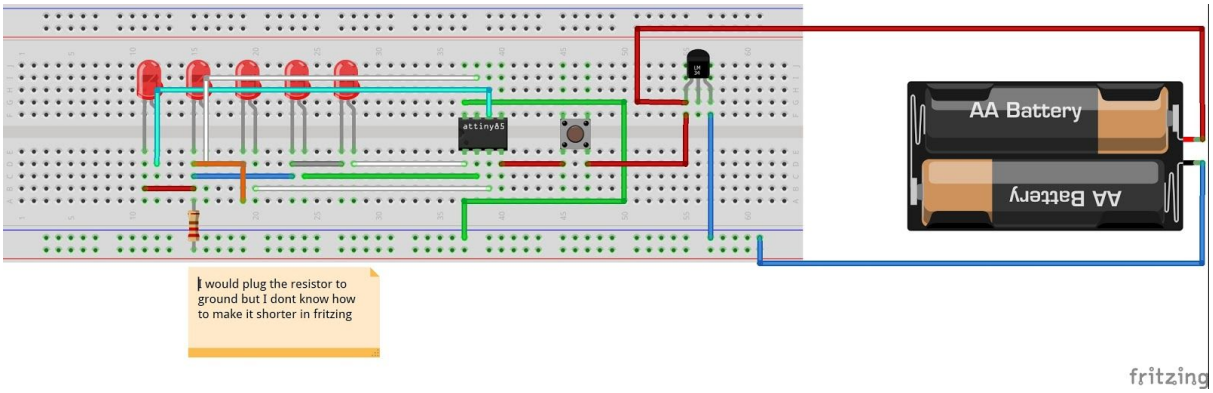
PART TWO:
The difference between the two circuit is in the number of resistors. For the Alternate Circuit, there's a resistor for each of the LEDs which, in my opinion, makes it more reliable. With only one resistor, if it breaks, none of the LEDs are going to work. With multiple resistors we avoid that problem.

With the built circuit, the amps are going to be divided equally between every LED. With the Alternate Circuit, there could be a slight difference in the number of amps in each LED. So the Built Circuit is less reliable, but maybe more accurate.

The voltage is not affected since it is the same in series or in parallel, but the amps are going to be separated equally between the 5 resistors placed in parallel. In the Built Circuit, the amps passing through the resistor would be equivalent to the total of amps in the circuit, while in the Alernate Circuit, the current in each resistor would be equivalent to ⅕ of the total of the circuit.

To make the circuit more meaningful, I would like to add a sensor for the temperature. Depending on a certain predetermined data, if the temperature of the object touching the

sensor is cold, the LEDs would light up to form the word COLD, and if it's hot they would light up to spell the word HOT.



PART 3: